

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1050

In the Matter of )  
Application of Duke Energy Carolinas, LLC )  
for Approval of Demand-Side Management )  
and Energy Efficiency Cost Recovery Rider )  
Pursuant to N.C. Gen. Stat. § 62-133.9 and )  
Commission Rule R8-69 )

DIRECT TESTIMONY OF  
TIMOTHY J. DUFF  
FOR  
DUKE ENERGY CAROLINAS, LLC

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Timothy J. Duff. My business address is 550 South Tryon Street,  
3 Charlotte, North Carolina 28202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC as General Manager,  
6 Customer Regulatory Strategy and Analytics.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL**  
8 **QUALIFICATIONS.**

9 A. I graduated from Michigan State University with a Bachelor of Arts in  
10 Political Economics and a Bachelor of Arts in Business Administration, and  
11 received a Master of Business Administration degree from the Stephen M.  
12 Ross School of Business at the University of Michigan. I started my career  
13 with Ford Motor Company and worked in a variety of roles within the  
14 company's financial organization, including Operations Financial Analyst and  
15 Budget Rent-A-Car Account Controller. After five years at Ford Motor  
16 Company, I started working with Cinergy in 2001, providing business and  
17 financial support to plant operating staff. Eighteen months later I joined  
18 Cinergy's Rates Department, where I provided revenue requirement analytics  
19 and general rate support for the company's transfer of three generating plants.  
20 After my time in the Rates Department, I spent a short period of time in the  
21 Environmental Strategy Department, and then I joined Cinergy's Regulatory  
22 and Legislative Strategy Department. After Cinergy merged with Duke

1 Energy Corporation (“Duke Energy”) in 2006, I started a four-year stint as  
2 Managing Director, Federal Regulatory Policy. In this role, I was primarily  
3 responsible for developing and advocating Duke Energy’s policy positions  
4 with the Federal Energy Regulatory Commission. I became General Manager,  
5 Energy Efficiency & Smart Grid Policy and Collaboration in 2010, was  
6 named General Manager, Retail Customer and Regulatory Strategy in 2011,  
7 and assumed my current position of General Manager, Customer Regulatory  
8 Strategy and Analytics in 2013.

9 **Q. PLEASE DESCRIBE YOUR DUTIES AS GENERAL MANAGER,**  
10 **CUSTOMER REGULATORY STRATEGY AND ANALYTICS.**

11 A. I am responsible for the development of strategies and policies related to  
12 energy efficiency and all other retail products and services. I also oversee the  
13 analytics functions associated with evaluating and tracking the performance of  
14 Duke Energy’s retail products and services.

15 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS**  
16 **COMMISSION OR ANY OTHER REGULATORY BODIES?**

17 A. Yes. I testified in Duke Energy Carolinas, LLC’s (“Duke Energy Carolinas”  
18 or the “Company”) applications to update its demand-side management  
19 (“DSM”) and energy efficiency (“EE”) cost recovery rider, Rider EE, in  
20 Docket Nos. E-7, Subs 941, 979, 1001, and 1031, as well as the Company’s  
21 application for approval of its new portfolio of DSM and EE program and new  
22 cost recovery mechanism in Docket No. E-7, Sub 1032. In addition to  
23 testifying on behalf of Duke Energy Carolinas in North Carolina, I also

1 testified in South Carolina in Docket 2013-298-E in support of the Company's  
2 application for approval of its new portfolio of DSM and EE program and new  
3 cost recovery mechanism. I also have testified in the following matters before  
4 the Public Utilities Commission of Ohio: Case No. 11-4393-EL-RDR in  
5 support of Duke Energy Ohio, Inc.'s ("Duke Energy Ohio") EE portfolio and  
6 the associated recovery mechanism; Case No. 13-0431-EL-POR in support of  
7 Duke Energy Ohio's 2014-2016 EE portfolio and associated recovery  
8 mechanism; Case No. 13-0753-EL-RDR in support of Duke Energy Ohio's  
9 annual EE and DSM cost recovery filing; Case No. 13-1141-EL-RDR in  
10 support of the annual cost recovery of Duke Energy Ohio's AMI/SmartGrid  
11 Program; Case No. 12-1857-GE-RDR in support of Duke Energy Ohio's  
12 application to true-up the recovery under its three-year long save-a-watt  
13 program; Case No. 10-2326-GE-RDR in support of the mid-deployment  
14 review of Duke Energy Ohio's AMI/SmartGrid Program; and Case No. 11-  
15 5905-EL-RDR in support of Duke Energy Ohio's application for a distribution  
16 decoupling mechanism. I also testified in support of Duke Energy Indiana,  
17 Inc.'s EE portfolio and the recovery mechanism for Core Plus EE programs in  
18 Indiana Cause No. 43955 and in support of its DSM 6 cost recovery filing  
19 specifically related to the adjustment of annual incentive targets in Indiana  
20 Cause No. 43079. Finally, I recently provided testimony in support of Duke  
21 Energy Kentucky, Inc.'s EE portfolio and associated recovery mechanism in  
22 Kentucky Case No. 2012-00085.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
2 **PROCEEDING?**

3 A. My testimony supports Duke Energy Carolinas' Application for approval of  
4 Rider EE for 2015 ("Rider 6"), which encompasses components relating to  
5 both the Company's save-a-watt pilot approved in Docket No. E-7, Sub 831,  
6 as well as the new cost recovery mechanism and portfolio of programs  
7 approved by the Commission in Docket No. E-7, Sub 1032. My testimony:  
8 (1) provides an overview of the Commission's Rule R8-69 filing  
9 requirements; (2) gives a synopsis of the EE and DSM programs included in  
10 this filing; (3) discusses our results to date; (4) explains how these results have  
11 affected the Rider 6 calculations; (5) provides an overview of cost recovery  
12 under the new mechanism.; and (6) updates the Commission on the status of  
13 the Company's discussions with various stakeholders as a result of the  
14 Commission's orders in Docket Nos. E-7, Subs 1031 and 1032.

15 **Q. PLEASE DESCRIBE THE EXHIBITS ATTACHED TO YOUR**  
16 **TESTIMONY.**

17 A. Duff Exhibit 1 supplies, for each program, load impacts and avoided cost  
18 revenue requirements by vintage. Duff Exhibit 2 contains a summary of net  
19 lost revenues for the period June 1, 2009 to December 31, 2015. Duff Exhibit  
20 3 contains the actual program costs for North Carolina for June 1, 2009  
21 through December 31, 2013 and estimated costs for the Duke Energy  
22 Carolinas system for the twelve months ending December 31, 2015. Duff  
23 Exhibit 4 contains the found revenues used in the net lost revenues

1 calculations. Duff Exhibit 5 supplies evaluations of event-based programs.  
2 Duff Exhibit 6 contains a discussion of the findings and results of the  
3 Company's programs and a comparison of impact estimates from the previous  
4 year. Duff Exhibit 7 contains the modified projected program and portfolio  
5 cost-effectiveness results for the portfolio of programs approved in Docket  
6 No. E-7, Sub 1032. Duff Exhibit 8 contains a summary of program  
7 performance and an explanation of the variances between the expected  
8 program results and the actual results. It is designed to create more  
9 transparency with regard to the factors that have driven these variances. Duff  
10 Exhibit 9 is a list of the Company's industrial and large commercial customers  
11 that have opted out of participation in the Company's DSM or EE programs  
12 and a listing of those customers that have elected to participate in new  
13 measures after having initially notified the Company that they declined to  
14 participate, as required by Commission Rule R8-69(d)(2). Duff Exhibit 10  
15 contains the detailed calculations underlying the Company's achievement  
16 level under the save-a-watt earnings cap. Duff Exhibit 11 contains the  
17 projected shared savings incentive associated with Vintage 2015.

18 **Q. WERE DUFF EXHIBITS 1-11 PREPARED BY YOU OR AT YOUR**  
19 **DIRECTION AND SUPERVISION?**

20 A. Yes, they were.

21 **II. RULE R8-69 FILING REQUIREMENTS**

22 **Q. WHAT INFORMATION IS THE COMPANY PROVIDING IN**  
23 **RESPONSE TO THE COMMISSION'S FILING REQUIREMENTS?**

- 1 A. The information for Rider 6 is provided in response to the Commission's  
2 filing requirements contained in R8-69(f)(1) and can be found in the  
3 testimony and exhibits of Company witnesses Duff, McGee, and Ham as  
4 follows:

<b>R8-69(f)(1)</b>	<b>Items</b>	<b>Location in Testimony</b>
(i)	Projected NC retail sales for the rate period	McGee Exhibit 6
(ii)	For each measure for which cost recovery is requested through Rider 6:	
(ii)	a. Total expenses expected to be incurred during the rate period	Duff Exhibit 1
(ii)	b. Total costs savings directly attributable to measures	Duff Exhibit 1
(ii)	c. Evaluation, Measurement, and Verification activities for the rate period	Ham Exhibit 1
(ii)	d. Expected summer and winter peak demand reductions	Duff Exhibit 1
(ii)	e. Expected energy reductions	Duff Exhibit 1
(iii)	Filing requirements for DSM/EE EMF rider, including:	
(iii)	a. Total expenses for the test period in the aggregate and broken down by type of expenditure, unit, and jurisdiction	Duff Exhibit 3
(iii)	b. Total avoided costs for the test period in the aggregate and broken down by type of expenditure, unit, and jurisdiction	Duff Exhibit 1
(iii)	c. Description of results from EM&V activities	Testimony of Roshena Ham and Ham Exhibits A-H
(iii)	d. Total summer and winter peak demand reductions in the aggregate and broken down per program	Duff Exhibit 1
(iii)	e. Total energy reduction in the aggregate and broken down per program	Duff Exhibit 1
(iii)	f. Discussion of findings and results of programs	Testimony of Tim Duff and Duff Exhibit 6
(iii)	g. Evaluations of event-based programs	Duff Exhibit 5
(iii)	h. Comparison of impact estimates from previous year and explanation of significant differences	Testimony of Tim Duff and Duff Exhibits 6 and 8
(iv)	Determination of utility incentives	Testimony of Tim Duff & Duff Exhibits 10 and 11
(v)	Actual revenues from DSM/EE and DSM/EE EMF riders	McGee Exhibit 3

(vi)	Proposed Rider 6	Testimony of Kimberly McGee & McGee Exhibit 1
(vii)	Projected NC sales for customers opting out of measures	McGee Exhibit 6
(viii)	Supporting work papers	CD accompanying filing

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**III. PORTFOLIO OVERVIEW**

**Q. WHAT ARE DUKE ENERGY CAROLINAS’ CURRENT EE AND DSM PROGRAMS?**

A. The Company has two interruptible programs for non-residential customers, Interruptible Service (“IS”) and Standby Generation (“SG”) that are accounted for outside of the cost recovery mechanism approved by the Commission in Docket No. E-7, Sub 1032. Aside from IS and SG, the following DSM and EE programs have been implemented by the Company in its North Carolina service territory:

**RESIDENTIAL CUSTOMER PROGRAMS**

- Appliance Recycling Program
- Energy Assessments Program
- Energy Efficiency Education Program
- Energy Efficient Appliances and Devices
- HVAC Energy Efficiency Program
- Multi-Family Energy Efficiency Program
- My Home Energy Report
- Income-Qualified Energy Efficiency and Weatherization Program
- Power Manager

**NON-RESIDENTIAL CUSTOMER PROGRAMS**



- 1 • Non-Residential Smart \$aver® Energy Efficient Food Service
- 2 Products Program
- 3 • Non-Residential Smart \$aver® Energy Efficient HVAC Products
- 4 Program
- 5 • Non-Residential Smart \$aver® Energy Efficient IT Products Program
- 6 • Non-Residential Smart \$aver® Energy Efficient Lighting Products
- 7 Program
- 8 • Non-Residential Smart \$aver® Energy Efficient Process Equipment
- 9 Products Program
- 10 • Non-Residential Smart \$aver® Energy Efficient Pumps and Drives
- 11 Products Program
- 12 • Non-Residential Smart \$aver® Custom Program
- 13 • Non-Residential Smart \$aver® Custom Energy Assessments Program
- 14 • PowerShare®
- 15 • PowerShare® CallOption
- 16 • Energy Management and Information Services Pilot Program

17 In addition, in Docket No. E-7, Sub 961, the Company applied for and  
18 was granted an extension of its Smart Energy Now pilot program for non-  
19 residential customers in the Charlotte area so that it can evaluate whether to  
20 implement Smart Energy Now as a fully commercialized program.

21 **Q. ARE THESE SUBSTANTIVELY THE SAME PROGRAMS DUKE**  
22 **ENERGY CAROLINAS RECEIVED APPROVAL FOR IN DOCKET**  
23 **NO. E-7, SUB 1032?**

1 A. Yes, with the exception of the extension of the Smart Energy Now pilot  
2 program, the portfolio of programs being offered to customers is exactly the  
3 same as the portfolio of programs approved in Docket No. E-7, Sub 1032.

4 **Q. PLEASE DESCRIBE ANY UPDATES MADE TO THE UNDERLYING**  
5 **ASSUMPTIONS FOR THE COMPANY'S PORTFOLIO OF**  
6 **PROGRAMS THAT HAVE ALTERED PROJECTIONS FOR**  
7 **VINTAGE 2015.**

8 A. Duke Energy Carolinas made two updates to the underlying assumptions for  
9 the program portfolio for Vintage 2015 compared to what was filed and  
10 approved in Docket No. E-7, Sub 1032. First, consistent with the notice that  
11 the Company filed with the Commission on December 18, 2013 in Docket No.  
12 E-7, Sub 1032, the Company, after reaching agreement with the Public Staff,  
13 updated the avoided capacity rates to reflect the rates contained in the  
14 Stipulation of Settlement among Duke Energy Carolinas, Duke Energy  
15 Progress, Inc. and the Public Staff filed October 29, 2013 in Docket No. E-  
16 100, Sub 136. This update affects the avoided cost benefits associated with  
17 each of the programs and, consequently, the cost-effectiveness of the entire  
18 portfolio and the Company's projected shared savings incentive.

19 The second update involved the application of Evaluation,  
20 Measurement, and Verification ("EM&V") results and updating of the savings  
21 impacts for those programs for which the Company received EM&V results  
22 after it filed its application in Docket No. E-7, Sub 1032. Updating programs  
23 for EM&V results will change the projected avoided cost benefits associated

1 with the projected participation and hence will impact the calculation of the  
2 specific program and overall portfolio cost-effectiveness, as well as impact the  
3 calculation of the Company's projected shared savings incentive.

4 **Q. AFTER FACTORING THESE UPDATES INTO THE VINTAGE 2015**  
5 **PORTFOLIO, DO THE RESULTS OF THE COMPANY'S**  
6 **PROSPECTIVE COST-EFFECTIVENESS TESTS INDICATE THAT**  
7 **ANY OF THE COMPANY'S PROGRAMS SHOULD BE**  
8 **DISCONTINUED OR MODIFIED?**

9 A. In accordance with the Agreement and Stipulation of Settlement the Company  
10 reached with the Public Staff, the North Carolina Sustainable Energy  
11 Association ("NCSEA"), the Southern Alliance for Clean Energy ("SACE"),  
12 Environmental Defense Fund ("EDF"), Natural Resources Defense Council  
13 ("NRDC"), the South Carolina Coastal Conservation League, and the Sierra  
14 Club filed with the Commission on August 19, 2013 (the "Stipulation") and  
15 approved in the Commission's *Order Approving DSM/EE Programs and*  
16 *Stipulation of Settlement* issued October 29, 2013 in Docket No. E-7, Sub  
17 1032 ("Sub 1032 Order"), the Company reviewed its portfolio and performed  
18 the prospective analysis of each of its programs and the aggregate portfolio for  
19 the Vintage 2015 period. As discussed above, this analysis factored in the  
20 impact of updating the avoided capacity rate and the impacts of programs for  
21 which the Company received updated EM&V. The projected cost-  
22 effectiveness from this analysis for each program and the entire portfolio for  
23 Vintage 2015 is contained in Duff Exhibit 7. This exhibit shows that, with the

1 exception of the Income Qualified Energy Efficiency Products and Services  
2 Program, which was not cost-effective prior to the updates, all of the programs  
3 and the aggregate portfolio continue to project to be cost-effective, so none of  
4 the programs have been modified or need to be discontinued.

5 **Q. DID THE COMPANY MAKE ANY UPDATES TO THE AVOIDED**  
6 **TRANSMISSION AND DISTRIBUTION RATES USED TO**  
7 **EVALUATE THE COST-EFFECTIVENESS OF ITS PORTFOLIO OF**  
8 **PROGRAMS APPROVED IN DOCKET NO. E-7, SUB 1032?**

9 A. No. While Duke Energy Carolinas has been working with Public Staff to  
10 study the issue of the appropriate avoided transmission and distribution  
11 (“T&D”) costs to be used in the Company’s calculations of cost-effectiveness,  
12 there has not been an agreement to date that would allow the Company to, if  
13 appropriate, recommend adjustments to the rate filed in Docket No. E-7, Sub  
14 1032 in this proceeding. Consistent with the Stipulation, if adjustments are  
15 deemed appropriate to the avoided T&D costs, the Company would apply the  
16 new cost rates prospectively in its Rider 7 filing and will utilize the adjusted  
17 rates in its Rider 8 filing to true-up Vintage 2015.

18 **Q. DID THE COMPANY MAKE ANY MODIFICATIONS TO ITS SAVE-**  
19 **A-WATT PORTFOLIO OF PROGRAMS DURING VINTAGE 4 OF**  
20 **THE SAVE-A-WATT PILOT?**

21 A. No. The Company did not make any modifications to any of its programs  
22 during Vintage 4 (2013) because it was focusing its attention on preparing to  
23 launch its new portfolio of programs in 2014 and was able to include any

1 desired modifications, measure additions or eliminations in its new portfolio  
2 of programs.

3 **IV. EE AND DSM PROGRAM RESULTS TO DATE**

4 **Q. HOW MUCH ENERGY, CAPACITY AND AVOIDED COSTS WERE**  
5 **SAVED AS A RESULT OF THE COMPANY'S EE AND DSM**  
6 **PROGRAMS DURING VINTAGE 4?**

7 A. During Vintage 4, Duke Energy Carolinas' EE and DSM programs delivered  
8 over 452 million kWh of energy savings and nearly 779 MW of capacity  
9 savings, which produced nominal avoided cost savings of \$241 million.

10 **Q. HOW MUCH ENERGY, CAPACITY AND AVOIDED COSTS HAVE**  
11 **BEEN SAVED AS A RESULT OF THESE PROGRAMS SINCE THE**  
12 **BEGINNING OF THE SAVE-A-WATT PILOT?**

13 A. Since receiving approval for the save-a-watt pilot, the Company through its  
14 EE and DSM programs has generated over 2,020 GWh of energy reductions  
15 and over 975 MW of capacity reductions. These programs have also  
16 generated over \$925 million in nominal avoided cost benefits for Duke  
17 Energy Carolinas' customers.

18 **Q. HOW DO THESE RESULTS COMPARE WITH THE**  
19 **PERFORMANCE TARGETS IN DOCKET NO. E-7, SUB 831?**

20 A. As shown in Duff Exhibit 10, during the four-year term of the modified save-  
21 a-watt pilot, the actual nominal avoided cost benefits generated by these  
22 programs are nearly 123% of the target to achieve shown in Exhibit B to the  
23 Agreement and Joint Stipulation of Settlement between Duke Energy

1 Carolinas, the Public Staff, SACE, EDF, NRDC, and the Southern  
2 Environmental Law Center filed June 12, 2009 in Docket No. E-7, Sub 831  
3 (“Save-a-Watt Settlement”). Similarly, capacity impacts are over 115% of the  
4 target over the four years, and energy impacts are over 135% of the  
5 cumulative target. Notably, this achievement is as compared to the original  
6 targets and does not reflect the impact that opt-out had on the number of  
7 eligible participants as contemplated in the Save-a-Watt Settlement. In other  
8 words, the Company exceeded the targets without adjustment. Given the  
9 Company’s achievement beyond the avoided cost targets for the Company’s  
10 save-a-watt pilot, it is entitled to the highest earning cap allowed under the  
11 Save-a-Watt Settlement. Essentially, due to the outstanding results delivered  
12 during the four-year term of the save-a-watt pilot, Duke Energy Carolinas is  
13 allowed to earn the lesser of the permitted avoided cost revenues or 15% of  
14 the program costs on an after-tax basis. After comparing the allowed avoided  
15 cost revenue calculation to the 15% earnings cap on program cost, the  
16 Company determined that it is appropriate to apply the 15% after-tax earnings  
17 cap, which is reflected in the calculation of the final save-a-watt true-up  
18 component of Rider 6.

19 **Q. DID ANY PROGRAMS SIGNIFICANTLY OUT-PERFORM**  
20 **RELATIVE TO THEIR ORIGINAL ESTIMATES?**

21 A. Yes, while the Company is exceedingly proud of how well its entire portfolio  
22 of programs performed during the four years of the save-a-watt pilot, clearly  
23 the majority of the impacts delivered were related to lighting measures in both

1 the residential and non-residential markets. For this reason, both the  
2 Residential Smart Saver® Program and the Non-Residential Smart Saver®  
3 Program have seen elevated participation and customers adopting measures at  
4 much higher rates than originally anticipated. In Vintage 4, the energy  
5 savings associated with the Non-Residential Smart Saver® Program  
6 (Prescriptive and Custom) were almost 142% of the save-a-watt target. The  
7 Residential Smart Saver® Program results exceeded its Vintage 4 targeted  
8 energy savings by 147%.

9 **Q. HAVE ANY PROGRAMS SIGNIFICANTLY UNDERPERFORMED**  
10 **RELATIVE TO THEIR ORIGINAL ESTIMATES?**

11 A. Yes, the same two programs that had previously underperformed during  
12 Vintages 1, 2, and 3 continued to underperform during Vintage 4. The Low  
13 Income Energy Efficiency and Weatherization Assistance Program continued  
14 to underperform in 2013 as the Company worked with the state energy offices  
15 to reestablish a plan for them to partner and administer the program now that  
16 the American Reinvestment and Recovery Act related funding provided by the  
17 federal government that had supplanted the Company's original program  
18 objectives is no longer available. As stimulus funding ran out in late 2012,  
19 Duke Energy Carolinas began efforts to support its Low Income Energy  
20 Efficiency and Weatherization Assistance Program with the goal of ramping it  
21 back up in 2013; however, due to the complexities of reestablishing the  
22 partnership with the state energy offices, the Company decided it would be

1 more productive from a customer engagement standpoint to restart the  
2 program in 2014 as a component of its new portfolio.

3 The Energy Efficiency Education Program for Schools also continued  
4 to struggle in 2013 versus its original as-filed targets, but continued to see  
5 significant improvement that began in 2012 due to the modifications made to  
6 the program in late 2011. In 2013, Duke Energy Carolinas achieved savings  
7 that were nearly 130% of the program's impacts achieved over the three-year  
8 period 2009 thru 2011.

9 **V. RIDER IMPACTS**

10 **Q. HAVE THE PARTICIPATION RESULTS AFFECTED THE VINTAGE**  
11 **4 EXPERIENCE MODIFICATION FACTOR?**

12 A. Yes. The Experience Modification Factor ("EMF") in Rider 6 accounts for  
13 changes to actual participation relative to the forecasted participation levels  
14 utilized in the Company's Vintage 4 Rider EE. As the Company receives  
15 actual participation information, Duke Energy Carolinas is able to update  
16 participation-driven actual avoided cost benefits and the net lost revenues  
17 derived from its EE and DSM programs. For example, as mentioned above,  
18 the Low Income Energy Efficiency and Weatherization Assistance Program  
19 and the Energy Efficiency Education Program for Schools have  
20 underperformed relative to their original participation targets. As such, their  
21 portions of the EMF will be reduced to reflect lower-than-anticipated  
22 participation. On the other hand, the Company saw higher-than-expected  
23 participation in its Non-Residential Smart Saver® Custom Program and the



1 CFL component of the Residential Smart Saver® Program and the Company  
2 has added new programs like the My Home Energy Report that have the effect  
3 of increasing the EMF. These results will also be included in the Vintage 4  
4 EMF to reflect actual participation.

5 **Q. HOW ARE THE RESULTS OF EVALUATION, MEASUREMENT**  
6 **AND VERIFICATION APPLIED TO THE COMPANY'S EE**  
7 **PROGRAMS?**

8 A. As further explained in Witness Ham's testimony, EM&V is a comprehensive  
9 assessment and data collection methodology utilized by the Company to  
10 determine the achieved load reductions, actual free ridership, and the  
11 effectiveness of program design for each measure or program. Pursuant to the  
12 agreement reached by the Company, Southern Alliance for Clean Energy and  
13 the Public Staff and approved by the Commission in its *Order Approving*  
14 *DSM/EE Rider and Requiring Filing of Proposed Customer Notice* issued  
15 November 8, 2011 in Docket No. E-7, Sub 979 ("EM&V Agreement"), for all  
16 EE programs, with the exception of Non-Residential Smart Saver Custom  
17 Rebate Program and Low Income Energy Efficiency and Weatherization  
18 Assistance Program, EM&V results shall be applied retrospectively to the  
19 beginning of the program offering. For the purposes of the vintage true-ups,  
20 these initial EM&V results will be considered actual results for a program  
21 until the next EM&V results are received. The new EM&V results will then  
22 be considered actual results going forward and applied prospectively for the  
23 purposes of truing up vintages from the first day of the month immediately

1 following the month in which the study participation sample for the EM&V  
2 was completed. This EM&V will then continue to apply and be considered  
3 actual results until it is superseded by new EM&V results, if any.

4 For all new programs and pilots, the Company will follow a consistent  
5 methodology, meaning that initial estimates of impacts will be used until  
6 Duke Energy Carolinas has valid EM&V results, which will then be applied  
7 back retrospectively to the beginning of the offering and will be considered  
8 actual results until a second EM&V is performed.

9 **Q. HOW WILL EM&V BE INCORPORATED INTO THE VINTAGE 4**  
10 **TRUE-UP COMPONENT OF RIDER 6?**

11 A. All of the final EM&V results that have been received by the Company as of  
12 December 31, 2013 have been applied prospectively from the first day of the  
13 month immediately following the month in which the study participation  
14 sample for the EM&V was completed in accordance with the EM&V  
15 Agreement. So, for any program for which the Company has received EM&V  
16 results, the per participant impact applied to the projected program  
17 participation in Vintage 4 is based upon the actual EM&V results that have  
18 been received.

19 **Q. PLEASE DESCRIBE HOW FOUND REVENUES WERE**  
20 **CALCULATED.**

21 A. Consistent with the "Decision Tree" found in Appendix A of the  
22 Commission's February 8, 2011 order in Docket No. E-7, Sub 831, possible  
23 found revenue activities were identified, categorized, and netted against the

1 net lost revenues created by the Company's EE programs. Found revenues  
2 may result from activities that directly or indirectly result in an increase in  
3 customer demand or energy consumption within Duke Energy Carolinas'  
4 service territory. However, load-building activities such as these would not be  
5 considered found revenues per se if they (1) would have occurred regardless  
6 of the Company's activity, (2) were a result of a Commission-approved  
7 economic development activity not determined to produce found revenues, or  
8 (3) were part of an unsolicited request for Duke Energy Carolinas to engage in  
9 an activity that supports efforts to grow the economy. On the other hand,  
10 found revenues would occur for load growth that did not fall into the previous  
11 categories but was directly or indirectly a result of Duke Energy Carolinas'  
12 activities. Based on the results of this work, all potential found revenue-  
13 related activities are identified and categorized in Duff Exhibit 3. The  
14 Company believes that it is appropriate and is planning to begin reporting  
15 activities outside of its EE programs that it undertakes that reduce customer  
16 consumption in its annual calculation of found revenues for next year's annual  
17 Rider filing. Specifically, the Company will be aggressively working with its  
18 outdoor lighting customers with aging Mercury Vapor lights to upgrade  
19 beyond simply new standard efficiency fixtures and move to more efficient  
20 LED fixtures. While adding new outdoor lighting customers has been  
21 considered to create found revenues, it seems logical that getting customers to  
22 move beyond standard and adopt more efficient LEDs reduces existing  
23 consumption and should be factored into the calculation of net lost revenues.

1 **Q. HAS THE OPT-OUT OF NON-RESIDENTIAL CUSTOMERS**  
2 **AFFECTED THE RESULTS FROM THE PORTFOLIO OF**  
3 **APPROVED PROGRAMS?**

4 A. Yes, the opt-out of qualifying non-residential customers has had a negative  
5 effect on Duke Energy Carolinas' overall non-residential impacts. For  
6 Vintage 4, the Company had 979 eligible customer accounts opt out of  
7 participating in Duke Energy Carolinas' non-residential portfolio of EE  
8 programs. While this represents slightly more than 10% of eligible customer  
9 accounts, these same customer accounts represent nearly 43% of the load for  
10 all eligible customers. Essentially, this means that Duke Energy Carolinas  
11 could only deliver the efficiency benefits associated with its non-residential  
12 programs to customers who comprise only slightly less than 72% of its total  
13 non-residential customer load.

14 **Q. WHAT HAS THE COMPANY DONE TO ENCOURAGE NON-**  
15 **RESIDENTIAL CUSTOMERS TO OPT-IN TO ITS PROGRAMS**  
16 **GOING FORWARD?**

17 A. Duke Energy Carolinas has applied the lessons learned through the save-a-  
18 watt pilot and taken a number of actions with its new portfolio of programs to  
19 increase non-residential customer participation. First, the Company requested  
20 and was granted by the Commission a waiver to allow for the separation of EE  
21 and DSM programs for the purpose of eligible customers making their annual  
22 opt-out election, which is a key way to encourage customer participation. The  
23 continuation of this waiver will give customers the necessary flexibility to not

1 have to opt out of both components and will allow more opt-out eligible  
2 customers to participate in either DSM or EE.

3 Second, Duke Energy Carolinas proposed and received approval to  
4 add a one week long “Opt-In Window” for customers who had previously  
5 elected to opt out in the annual window. During the first week of March (5  
6 business days), the Company will allow opted-out customers to elect to opt in  
7 and participate in EE and DSM programs during the remainder of the vintage  
8 year. The Company believes that allowing eligible customers this additional  
9 window to consider participating in EE and/or DSM programs could  
10 potentially decrease the number of customers electing to opt out. During the  
11 save-a-watt pilot, several of the Company’s customers expressed that, due to  
12 the late November timing of the opt-out window, they did not have finalized  
13 capital budgets for the next year and were choosing to opt out because they  
14 were unsure they would be able to undertake any EE-related capital projects  
15 that would qualify for an incentive under the Company’s offerings. By  
16 allowing a customer that elected to opt out in November to opt back in during  
17 March, the Company believes that it can effectively minimize this barrier to  
18 participation. In order to ensure that customers pay their fair share of Rider  
19 EE, any customer choosing to opt in during the March window would be  
20 back-billed for the Rider EE amount that they would have paid had they  
21 chosen to participate during the November window.

22 Next, the Company restructured its non-residential program offerings  
23 in attempts to make it easier for customers to quickly identify potential

1 measures that would meet their efficiency needs. During the save-a-watt  
2 pilot, all of the measures in the various technology buckets, like lighting, were  
3 lumped into the Non-Residential Smart Saver Program, which caused the  
4 customer to look through a list of over 260 measures to investigate whether  
5 there were measures that would elicit their participation.

6 Finally, the Company plans to investigate adding new measures and  
7 programs to its portfolio as new technologies and delivery channels develop  
8 and will continue to work to educate vendors, trade-allies, and suppliers to  
9 help them incorporate incentives from EE programs into their offers for  
10 customers.

11 **Q. PLEASE PROVIDE AN UPDATE REGARDING THE COMPANY'S**  
12 **ACTIVITIES TO FULFILL ITS COMMITMENT IN E-7, SUB 1031 TO**  
13 **EXPLORE THE MERITS OF CONDUCTING A SURVEY OR STUDY**  
14 **OF OPTED OUT CUSTOMERS.**

15 A. On January 24, 2014, Duke Energy Carolinas convened a meeting of  
16 interested stakeholders to explore and develop a consensus position regarding  
17 the merits of conducting a study or survey of opted-out customers, and if  
18 deemed to be a prudent endeavor, the parameters of such a study. Prior to  
19 conducting this meeting, Duke Energy Carolinas noticed all of the parties to  
20 Docket No. E-7, Sub 831 (i.e., the save-a-watt docket), as well as the  
21 members of its Collaborative regarding the meeting in efforts to ensure that it  
22 had a broad and diverse set of stakeholders participating in the discussion. At  
23 the onset of the meeting, there was some general discussion regarding the

1 purpose of the meeting, and Duke Energy Carolinas established that while  
2 there were other commitments made by the Company related to opted-out  
3 customers, such as working with stakeholders to identify ways to potentially  
4 make its programs more attractive to customers, this meeting was to focus on  
5 the need and feasibility of conducting a survey or study of opted-out  
6 customers related to their decision to opt out. A number of parties including,  
7 but not limited to, SACE, NCSEA, and NRDC stated that they believed a  
8 survey or study of opted-out customers would have merit because it would  
9 allow the Company to have better insight into what customers that opted out  
10 were doing on their own with respect to EE, as well as creating greater clarity  
11 around customers' rationale for electing to opt out rather than participating in  
12 Duke Energy Carolinas' programs. With this information that they believe  
13 would be obtained through the study or survey, they contended that the  
14 Company would be able to better reflect the impacts of EE in the IRP process,  
15 as well as potentially improve the Company's EE and DSM programs. A  
16 number of parties that were representing opt-out eligible customers, including,  
17 but not limited to, Carolina Industrial Group for Fair Utility Rates II, Carolina  
18 Utility Customers Association, Inc., and Walmart stated their opposition to the  
19 need or merit of conducting such a study. Most notably they pointed to the  
20 fact that such a study or survey would be inconsistent with the requirements in  
21 Senate Bill 3 and could unnecessarily expose customers to the risk of  
22 disclosing confidential and proprietary competitive information. These  
23 parties, as well as representatives of Duke Energy's Large Account

1 Management Group, stated that many opt-out eligible customers regularly  
2 discuss the economics of investing in EE and participating in the Company's  
3 EE and DSM programs, but that they would not want to share this information  
4 publicly due to the competitive nature of it. After considering all of the  
5 discussion related to the merits of conducting a survey or study of opted out  
6 customers occurred, Duke Energy Carolinas took a poll to determine if there  
7 was a consensus as to the merits of conducting a study or survey. After  
8 conducting the poll, it was clear that there was not a consensus among the  
9 parties, as some parties seemed to feel the study was warranted and others  
10 including the non-residential customer representation, South Carolina Office  
11 of Regulatory Staff, and Public Staff did not believe that there was enough  
12 merit to justify conducting such a survey. Since there was not a consensus,  
13 we did not continue down the path of discussing feasibility and the parameters  
14 of the study.

15 **Q. PLEASE PROVIDE AN UPDATE REGARDING THE COMPANY'S**  
16 **COMMITMENT TO CONVENE A STAKEHOLDER GROUP**  
17 **SPECIFICALLY FOCUSED ON INVESTIGATING THE IMPACT**  
18 **THAT INCREASING INCENTIVES ABOVE CURRENT LEVELS**  
19 **WOULD HAVE ON OPT-OUT ELIGIBLE CUSTOMER**  
20 **PARTICIPATION, PROGRAM COST-EFFECTIVENESS AND**  
21 **POTENTIAL FREE RIDERSHIP.**

22 A. The Company, consistent with its commitment in Docket No. E-7, Sub 1032,  
23 is still planning on conducting an interested stakeholder meeting to discuss the



1 potential that increasing incentives above their current levels would have on  
2 opt-out eligible customer participation, program cost-effectiveness and  
3 potential free ridership. The Company will meet its commitment to conduct  
4 such a meeting prior to June 1, 2014, but has not conducted the meeting to  
5 date, as it felt that it would be more beneficial to have this discussion after its  
6 non-residential customers have experience with its new portfolio of programs  
7 and the new opt-in window the first week of March. The Company believes  
8 that the discussion will be far more meaningful, at the point when it can better  
9 assess how the programmatic and structural revisions incorporated in its new  
10 portfolio of programs has been received by opt-out eligible non-residential  
11 customers. The Company will provide an update of the outcome of this  
12 meeting in its next annual rider filing in March 2015.

13 **VI. THE VINTAGE 2015 COMPONENT OF RIDER 6**

14 **Q. WHAT IS THE PRIMARY DIFFERENCE BETWEEN THE VINTAGE**  
15 **2015 COMPONENT OF THE COMPANY'S PROPOSED RIDER 6**  
16 **AND THE SAVE-A-WATT TRUE-UP PORTION OF THE PROPOSED**  
17 **RIDER 6?**

18 A. The primary difference is that the revenue requirement calculation for the  
19 Vintage 2015 component of the Rider 6 filing applies the shared savings  
20 recovery mechanism approved in Docket No. E-7, Sub 1032.

21 **Q. PLEASE PROVIDE AN OVERVIEW OF THE SHARED SAVINGS**  
22 **RECOVERY MECHANISM APPROVED IN DOCKET NO. E-7, SUB**  
23 **1032.**

1 A. Pursuant to the Stipulation, the Company's cost recovery mechanism allows  
2 the Company to (1) recover the reasonable and prudent costs incurred for  
3 adopting and implementing DSM and EE measures in accordance with N.C.  
4 Gen. Stat. §62-133.9 and Commission Rules R8-68 and R8-69; (2) recover net  
5 lost revenues incurred for up to 36 months of a measure's life for EE  
6 programs; and (3) earn a Portfolio Performance Incentive ("PPI") based upon  
7 the sharing of 11.5% of the net savings achieved through the Company's EE  
8 and DSM programs on an annual basis.

9 **Q. PLEASE EXPLAIN HOW THE PPI IS DETERMINED.**

10 A. First, the net savings eligible for incentive are determined by subtracting the  
11 present value of the annual lifetime EE and DSM program costs (excluding  
12 approved low-income programs as described below) from the net present  
13 value of the annual lifetime avoided costs achieved through the Company's  
14 programs (again, excluding approved low-income programs). The net savings  
15 eligible for incentive are then multiplied by the 11.5% shared savings  
16 percentage to determine the Company's pretax incentive.

17 **Q. PLEASE EXPLAIN HOW PROGRAMS THAT ARE DETERMINED**  
18 **NOT TO BE COST-EFFECTIVE, BUT ARE DEEMED BY THE**  
19 **COMMISSION TO BE APPROPRIATE TO OFFER, WOULD BE**  
20 **TREATED.**

21 A. Duke Energy Carolinas recognizes that there are certain EE programs that  
22 may not be cost-effective, but are nevertheless desirable for societal and  
23 policy reasons. The most common example of this type of program would be

1 low-income weatherization. Accordingly, for any EE program that is not  
2 cost-effective (but nevertheless is desirable for the Company to implement  
3 and is approved by the Commission), the Company shall be eligible to recover  
4 the program costs and 36 months of the net lost revenues associated with the  
5 impacts of the program. The Company does not earn an incentive on these  
6 programs, and the negative net savings associated with these types of  
7 programs is not factored into the calculation of the annual shared savings PPI.  
8 In other words, the offering of programs that are not cost-effective (but are  
9 desirable for the Company to implement for other reasons) does not impact  
10 the amount of the incentive that the Company earns for providing cost-  
11 effective EE and DSM programs.

12 **Q. PLEASE DESCRIBE OTHER IMPORTANT ASPECTS THAT HAVE**  
13 **BEEN INCORPORATED INTO THE STIPULATION.**

14 A. In the development of the Stipulation, the parties to the Stipulation agreed  
15 with the Company's proposal in its application to continue to leverage the  
16 benefits and clarity that have been achieved through its save-a-watt pilot.  
17 Specifically, the parties to the Stipulation agreed that the following  
18 components of the save-a-watt pilot should be incorporated into the new  
19 portfolio and new recovery model.

20 First, the Commission-approved Found Revenues Decision Tree from  
21 the save-a-watt pilot will continue to be utilized for the purposes of  
22 recognizing found revenues in the calculation of net lost revenues. Second,  
23 EM&V will continue to be applied in accordance with the Commission-

1 approved EM&V Agreement. Third, just as during the save-a-watt pilot, the  
2 new recovery mechanism employs a vintage year concept. A vintage year is  
3 the twelve-month period in which a specific DSM or EE measure is installed  
4 for an individual participant or a group of participants. Duke Energy  
5 Carolinas is executing its four-year program based on vintage years that are  
6 twelve-month, calendar year periods for administrative ease. Accordingly, an  
7 extension of the waiver of Rule R8-69(a)(4) defining the “rate period” that  
8 was granted in the Commission’s June 3, 2010 *Order on Motions for*  
9 *Reconsideration* also in Docket No. E-7, Sub 938 (“Second Waiver Order”)  
10 was again approved, meaning the Commission is continuing to allow the “rate  
11 period” for Rider EE to also be a calendar year, and align with a vintage year.

12 Finally, the Company will continue to operate under the Commission-  
13 approved Program Flexibility Guidelines, which allow the Company to  
14 quickly respond to market conditions and customer demand for additional EE  
15 measures in order to make its existing program offerings more attractive to  
16 customers and maximize their effectiveness.

17 **VII. PROJECTED RESULTS**

18 **Q. PLEASE PROVIDE A PROJECTION OF THE RESULTS THAT THE**  
19 **COMPANY EXPECTS TO SEE FROM IMPLEMENTATION OF THE**  
20 **NEW PORTFOLIO.**

21 **A.** Consistent with its practices during the save-a-watt pilot, the Company will  
22 update the actual and projected EE achievement levels in its annual Rider EE  
23 filing to account for any program or measure additions based on the

1 performance of programs, market conditions, economics and consumer  
2 demand. A projection of the results for the next four years as well as the  
3 associated projected program expense for the Company’s new portfolio of  
4 programs are summarized in Table 2 below:

5 **Table 2.**

**Duke Energy Carolinas System (NC & SC) EE/DSM Portfolio Projected Results**

	2014	2015	2016	2017
Annual System MW	888	970	1,012	1,049
Annual System Net MWh	401,663	413,574	427,079	434,467
Annual Program Costs (Millions)	\$101	\$105	\$107	\$111

6 These projections are very similar to those provided by the Company and  
7 approved by the Commission in Docket No. E-7, Sub 1032. The projected  
8 impacts are slightly different because of EM&V applied to the following  
9 programs: PowerShare, Power Manager, Residential CFLs, and Residential  
10 Energy Assessments: PER/OHEC. The projected program costs have not  
11 been updated, because the Company does not have any updated participation  
12 or cost projections to be applied since it put together the projected results of  
13 the portfolio.

14 **VIII. COLLABORATIVE DISCUSSIONS**

15 **Q. PLEASE PROVIDE AN UPDATE OF DISCUSSIONS OF NC WARN’S**  
16 **PROPOSALS RELATING TO LOW-INCOME PROGRAMS.**

1 A. As a component of the Stipulation, the Company agreed to meet with North  
2 Carolina Waste Awareness and Reduction Network (“NC WARN”) and other  
3 interested stakeholders to discuss the low-income program proposals  
4 submitted by NC WARN in Docket No. E-7, Sub 1032, as alternatives to the  
5 Company’s Multi-Family EE Program and Income-Qualified EE and  
6 Weatherization Program. Duke Energy Carolinas conducted a meeting with  
7 representatives from NC WARN, Clean Energy Durham, the North Carolina  
8 Housing Coalition (“Housing Coalition”), and the Public Staff on January 23,  
9 2014. At the meeting, there were comprehensive discussions regarding how  
10 to best engage low-income customers in EE programs that achieve real energy  
11 savings. One of the topics discussed was the Company’s apprehension around  
12 simply shifting funding from its established weatherization program run  
13 collaboratively with the state energy offices to a program administered by the  
14 Housing Coalition. Duke Energy Carolinas reiterated the fact that, absent any  
15 additional documentation on the potential superiority of a program  
16 administered by the Housing Coalition, the Company felt that it would be  
17 counterproductive to move away from its existing program administered by  
18 the state energy offices, which the Company has already invested significant  
19 time in creating.

20 The second topic of discussion focused on the need for “utility grade”  
21 EM&V, in order to evaluate some of the proposed low-income programs, such  
22 as the work of Clean Energy Durham, on a level playing field with utility  
23 programs. In the course of this discussion, it was suggested that the cost of

1 utility grade EM&V is prohibitive for many of these types of initiatives that  
2 focus solely on benefitting low-income customers. Duke Energy Carolinas  
3 agreed to review the findings of the University of North Carolina  
4 Environmental Finance Center relating to Clean Energy Durham's Warren  
5 County pilot and to provide feedback on how the pilot would need to be  
6 altered to be considered for a utility program. NC WARN posed the question  
7 of whether Duke Energy Carolinas would be willing to pay for utility grade  
8 EM&V for low-income programs administered by local North Carolina  
9 agencies. The Company stated that it would need the approval of the  
10 Commission to fund such activities, but indicated that it would be willing to  
11 discuss the concept in its upcoming first quarter 2014 Collaborative meeting  
12 to see how the stakeholders felt about the proposal before the Company  
13 decided whether to put such a proposal before the Commission.

14 Finally, the group discussed the potential to move forward with a low-  
15 income program similar to the program currently being piloted by Duke  
16 Energy Ohio. In particular, the Public Staff asked to be given updates as the  
17 Ohio pilot progresses so that it could be considered as another low-income  
18 program option. The meeting concluded with all parties agreeing that further  
19 discussion on low-income programs as part of the ongoing Collaborative  
20 meetings was warranted, and NC WARN would send the Company the  
21 contact information for the new attendees. Duke Energy Carolinas will  
22 include these individuals in its first quarter Collaborative meeting for 2014.

1 **Q. PLEASE PROVIDE AN UPDATE OF THE STATUS OF THE**  
2 **COLLABORATIVE’S CONSIDERATION OF ON-BILL REPAYMENT**  
3 **AND COMBINED HEAT AND POWER.**

4 A. In the Stipulation, the Company agreed to commence discussion and  
5 consideration of on-bill repayment (“OBR”) and combined heat and power  
6 (“CHP”) as part of the Collaborative no later than December 31, 2013.  
7 Accordingly, as part of its fourth quarter Collaborative meeting held on  
8 December 13, 2013, the Company had extensive discussions with interested  
9 parties related to the potential development of a commercial OBR program  
10 and a CHP program. During the meeting, EDF discussed its experience in  
11 other jurisdictions related to OBR. While the Company and other parties  
12 recognize that OBR could provide additional motivation for a customer to  
13 participate in EE and DSM programs, there were significant questions raised  
14 regarding the logistics of implementing an OBR program, including the  
15 system costs to support the program, dealing with the transfer of the  
16 outstanding loan if a new customer moves into a facility, and dealing with  
17 customers that go out of business while still having an unpaid loan.  
18 Ultimately, the Company did not feel that there was enough evidence to  
19 suggest that an OBR program for commercial customers would be more  
20 effective than the direct incentive that is currently utilized.

21 During the discussion of CHP, information was presented to the  
22 Collaborative by both a Company expert and an external expert from North  
23 Carolina State University. Collaborative members seemed to agree that there



1 is significant opportunity around CHP, but also that there are significant  
2 structural barriers to the opportunity related to up-front capital costs and the  
3 impending expiration of the North Carolina tax credit for CHP. The other  
4 issue that was discussed was the need to structure a CHP program with a  
5 multi-year performance contract in order to ensure that the actual hours of  
6 operation align with the hours of operation projected for the project. All  
7 parties agreed that further discussion regarding a CHP-focused program may  
8 be warranted, but in the interim agreed that the Company would work under  
9 its existing Non-Residential Smart Saver® Custom Program to meet the needs  
10 of any customer that expresses an interest in a CHP project that meets the  
11 eligibility requirements.

12 **IX. CONCLUSION**

13 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

14 A. Yes.

Duke Energy Carolinas, LLC  
EE Vintage 1 ( June 1, 2009 - December 31, 2009)  
Docket Number E-7, Sub 1050  
Load Impacts and Avoided Cost Revenue Requirements by Program

	A	B	C	D		
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement @50%	System Avoided Cost @ 100%		
			NC Retail kWh Sales Allocation Factor (McGee Exhibit 5, Pg. 1)	NC Residential Avoided Costs		
				A * C		
<b>Residential Programs</b>						
<b>EE Programs (at 50% Avoided Cost)</b>						
1 Residential Energy Assessments	1,057	8,369,462	\$ 1,106,481	\$ 2,212,962	73.0077318%	\$ 807,817
2 Smart Saver® for Residential Customers	1,592	12,547,819	\$ 1,940,744	\$ 3,881,488	73.0077318%	\$ 1,416,893
3 Low Income Energy Efficiency and Weatherization Assistance	143	1,354,096	\$ 141,337	\$ 282,675	73.0077318%	\$ 103,187
4 Energy Efficiency Education Program for Schools	56	303,763	\$ 55,373	\$ 110,746	73.0077318%	\$ 40,427
5 Total for Residential Conservation Programs	2,849	22,575,141	\$ 3,243,936	\$ 6,487,871		\$ 2,368,324
			System Avoided Cost Revenue Requirement @75%	System Avoided Cost @ 100%	NC Residential Peak Demand Allocation Factor (McGee Exhibit 5, Pg. 1)	A6 * C6
6 Total DSM Programs (at 75% Avoided Cost)	116,172		\$ 4,655,124	\$ 6,206,832	33.9010659%	\$ 1,578,137
<b>Non-Residential Programs</b>						
<b>EE Programs (at 50% Avoided Cost)</b>						
7 Smart Saver® for Non-Residential Customers Lighting	5,267	28,004,505	\$ 5,247,545	\$ 10,495,089	73.0077318%	\$ 3,831,113
8 Smart Saver® for Non-Residential Customers Motors	124	624,404	\$ 183,846	\$ 367,691	73.0077318%	\$ 134,222
9 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	-	-	\$ -	\$ -	73.0077318%	\$ -
10 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	46	257,738	\$ 67,096	\$ 134,192	73.0077318%	\$ 48,985
11 Smart Saver® for Non-Residential Customers - HVAC	267	765,127	\$ 295,533	\$ 591,065	73.0077318%	\$ 215,762
12 Smart Saver® for Non-Residential Customers - Custom Rebate	19	232,797	\$ 30,165	\$ 60,330	73.0077318%	\$ 22,023
13 Total for Non-Residential Conservation Programs	5,724	29,884,571	\$ 5,824,184	\$ 11,648,368		\$ 4,252,105
			System Avoided Cost Revenue Requirement @75%	System Avoided Cost @ 100%	NC Non-Residential Peak Demand Allocation Factor (McGee Exhibit 5, Pg. 1)	A14* C14
14 Total DSM Programs (at 75% Avoided Cost)	116,172		\$ 4,655,124	\$ 6,206,832	39.9179344%	\$ 1,858,229
<b>Total DSM Program Breakdown</b>						
15 Power Manager (Residential)	57,494	-	\$ 3,082,269	\$ 4,109,692		
16 Power Share (Non-Residential)	58,678	-	\$ 1,572,855	\$ 2,097,140		
17 Total DSM	116,172	-	\$ 4,655,124	\$ 6,206,832	73.8190004%	\$ 3,436,366
			System Avoided Cost Revenue Requirement @75%	System Avoided Cost @ 100%	NC Retail Peak Demand Allocation Factor (McGee Exhibit 5, Pg.1)	A17* C17

(1) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak  
Note: Schedule may not foot due to rounding

Duke Energy Carolinas, LLC  
EE Vintage 1 ( January 1, 2010 - December 31, 2010)  
Docket Number E-7, Sub 1050  
Load Impacts and Avoided Cost Revenue Requirements by Program

	A	B	C	D		
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement @50%	System Avoided Cost @ 100%		
			NC Retail kWh Sales Allocation Factor (McGee Exhibit 5, Pg. 2)	NC Residential Avoided Costs A * C		
<b>Residential Programs</b>						
<b>EE Programs (at 50% Avoided Cost)</b>						
Line 1 Residential Energy Assessments	1,563	11,178,033	\$ 1,549,012	\$ 3,098,024	72.7072722%	\$ 1,126,244
2 Smart Saver® for Residential Customers	41,497	381,777,103	\$ 42,560,548	\$ 85,121,096	72.7072722%	\$ 30,944,613
3 Low Income Energy Efficiency and Weatherization Assistance	599	5,663,263	\$ 591,118	\$ 1,182,236	72.7072722%	\$ 429,786
4 Energy Efficiency Education Program for Schools	469	2,526,416	\$ 460,540	\$ 921,080	72.7072722%	\$ 334,846
5 Residential Retrofit Pilot	-	-	\$ -	\$ -	72.7072722%	\$ -
6 Home Energy Comparison Report (My Home Energy Report)	159	854,645	\$ 24,503	\$ 49,006	72.7072722%	\$ 17,815
7 Total for Residential Conservation Programs	44,287	401,999,460	\$ 45,185,721	\$ 90,371,442		\$ 32,853,305
<b>Total DSM Programs (at 75% Avoided Cost)</b>						
8	438,636		\$ 23,515,262	\$ 31,353,683	34.4404513%	\$ 8,098,762
<b>Non-Residential Programs</b>						
<b>EE Programs (at 50% Avoided Cost)</b>						
9 Smart Saver® for Non-Residential Customers Lighting	13,466	68,411,677	\$ 13,710,093	\$ 27,420,185	72.7072722%	\$ 9,968,234
10 Smart Saver® for Non-Residential Customers Motors	533	2,724,749	\$ 798,480	\$ 1,596,959	72.7072722%	\$ 580,553
11 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	0	380	\$ 44	\$ 87	72.7072722%	\$ 32
12 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	155	788,310	\$ 191,588	\$ 383,176	72.7072722%	\$ 139,298
13 Smart Saver® for Non-Residential Customers - HVAC	1,586	3,964,553	\$ 1,734,583	\$ 3,469,166	72.7072722%	\$ 1,261,168
14 Smart Saver® for Non-Residential Customers - Custom Rebate	2,716	21,205,380	\$ 3,608,163	\$ 7,216,325	72.7072722%	\$ 2,623,397
15 Total for Non-Residential Conservation Programs	18,456	97,095,050	\$ 20,042,949	\$ 40,085,899		\$ 14,572,682
<b>Total DSM Programs (at 75% Avoided Cost)</b>						
16	438,636		\$ 23,515,262	\$ 31,353,683	40.3489126%	\$ 9,488,153
<b>Total DSM Program Breakdown</b>						
17 Power Manager (Residential)	228,421	-	\$ 12,245,662	\$ 16,327,550		
18 Power Share (Non-Residential)	210,215	-	\$ 11,269,600	\$ 15,026,133		
19 Total DSM	438,636	-	\$ 23,515,262	\$ 31,353,683	74.7893638%	\$ 17,586,915

(1) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak  
Note: Schedule may not foot due to rounding

Duke Energy Carolinas, LLC  
EE Vintage 2 (January 1, 2011 - December 31, 2011)  
Docket Number E-7, Sub 1050  
Load Impacts and Avoided Cost Revenue Requirements by Program

Line	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	A	B	C	D	
			System Avoided Cost Revenue Requirement @ 50%	System Avoided Cost @ 100%	NC Retail kWh Sales Allocation Factor (McGee Exhibit 5, Pg. 3)	NC Residential Avoided Costs A * C	
<b>Residential Programs</b>							
<b>EE Programs (at 50% Avoided Cost)</b>							
1	Residential Energy Assessments	1,306	9,227,946	\$ 1,314,136	\$ 2,628,271	72.6972151%	\$ 955,340
2	Smart Saver® for Residential Customers	39,712	367,409,449	\$ 40,319,118	\$ 80,638,236	72.6972151%	\$ 29,310,876
3	Low Income Energy Efficiency and Weatherization Assistance	52	488,949	\$ 50,792	\$ 101,583	72.6972151%	\$ 36,924
4	Energy Efficiency Education Program for Schools	262	1,413,208	\$ 265,292	\$ 530,585	72.6972151%	\$ 192,860
5	Residential Retrofit Pilot	21	126,564	\$ 40,936	\$ 81,871	72.6972151%	\$ 29,759
6	Home Energy Comparison Report (My Home Energy Report)	66	356,218	\$ 30,711	\$ 61,423	72.6972151%	\$ 22,326
7	<b>Total for Residential Conservation Programs</b>	<b>41,419</b>	<b>379,022,334</b>	<b>\$ 42,020,984</b>	<b>\$ 84,041,969</b>		<b>\$ 30,548,085</b>
<b>8 Total DSM Programs (at 75% Avoided Cost)</b>							
		548,335		\$ 30,131,132	\$ 40,174,843	32.2293181%	\$ 9,711,058
<b>NC Non-Residential Avoided Costs</b>							
							<b>A8 * C8</b>
<b>Non-Residential Programs</b>							
<b>EE Programs (at 50% Avoided Cost)</b>							
9	Smart Saver® for Non-Residential Customers Lighting	11,329	64,190,217	\$ 13,497,639	\$ 26,995,278	72.6972151%	\$ 9,812,407
10	Smart Saver® for Non-Residential Customers Motors	1,107	5,750,908	\$ 1,286,403	\$ 2,572,806	72.6972151%	\$ 935,179
11	Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	82	503,823	\$ 54,884	\$ 109,767	72.6972151%	\$ 39,899
12	Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	184	1,012,402	\$ 263,359	\$ 526,717	72.6972151%	\$ 191,454
13	Smart Saver® for Non-Residential Customers - HVAC	1,869	4,987,231	\$ 2,094,930	\$ 4,189,860	72.6972151%	\$ 1,522,956
14	Smart Saver® for Non-Residential Customers - Custom Rebate	6,585	55,974,704	\$ 11,605,896	\$ 23,211,792	72.6972151%	\$ 8,437,163
15	Smart Energy Now	1,344	7,159,090	\$ 825,610	\$ 1,651,219	72.6972151%	\$ 600,195
16	<b>Total for Non-Residential Conservation Programs</b>	<b>22,500</b>	<b>139,578,375</b>	<b>\$ 29,628,719</b>	<b>\$ 59,257,438</b>		<b>\$ 21,539,254</b>
<b>17 Total DSM Programs (at 75% Avoided Cost)</b>							
		548,335		\$ 30,131,132	\$ 40,174,843	42.2350050%	\$ 12,725,885
<b>NC Non-Residential Peak Demand Allocation Factor (McGee Exhibit 5, Pg. 3)</b>							
							<b>A17* C17</b>
<b>Total DSM Program Breakdown</b>							
18	Power Manager (Residential)	226,935	-	\$ 12,470,132	\$ 16,626,843		
19	Power Share (Non-Residential)	321,400	-	\$ 17,661,000	\$ 23,548,000		
20	<b>Total DSM</b>	<b>548,335</b>	<b>-</b>	<b>\$ 30,131,132</b>	<b>\$ 40,174,843</b>	<b>74.4643230%</b>	<b>\$ 22,436,943</b>
							<b>A20* C20</b>

(1) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak  
Note: Schedule may not foot due to rounding

Duke Energy Carolinas, LLC  
EE Vintage 3 (January 1, 2012 - December 31, 2012)  
Docket Number E-7, Sub 1050  
Load Impacts and Avoided Cost Revenue Requirements by Program

Line	Program	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement @		NC Retail kWh Sales Allocation Factor (McGee Exhibit 5, Pg. 4)	NC Residential Avoided Costs A * C
				50%	100%		
<b>Residential Programs</b>							
<b>EE Programs (at 50% Avoided Cost)</b>							
1	Appliance Recycling	366	1,971,543	\$ 389,649	\$ 779,299	72.7194575%	\$ 283,351
2	Residential Energy Assessments	1,607	10,486,549	\$ 1,773,940	\$ 3,547,879	72.7194575%	\$ 1,289,999
3	Smart Saver® for Residential Customers	24,247	224,334,902	\$ 25,850,570	\$ 51,701,139	72.7194575%	\$ 18,798,394
4	Low Income Energy Efficiency and Weatherization Assistance	-	-	\$ -	\$ -	72.7194575%	\$ -
5	Energy Efficiency Education Program for Schools	1,748	9,422,807	\$ 1,781,282	\$ 3,562,564	72.7194575%	\$ 1,295,338
6	Residential Retrofit Pilot	47	283,678	\$ 94,987	\$ 189,973	72.7194575%	\$ 69,074
7	Home Energy Comparison Report (My Home Energy Report)	10,461	49,339,464	\$ 1,428,665	\$ 2,857,330	72.7194575%	\$ 1,038,918
8	<b>Total for Residential Conservation Programs</b>	<b>38,475</b>	<b>295,838,944</b>	<b>\$ 31,319,092</b>	<b>\$ 62,638,184</b>		<b>\$ 22,775,074</b>
				System Avoided Cost Revenue Requirement @ 75%	System Avoided Cost @ 100%	NC Residential Peak Demand Allocation Factor (McGee Exhibit 5, Pg. 4)	A9 * C9
9	<b>Total DSM Programs (at 75% Avoided Cost)</b>	645,443		\$ 36,353,911	\$ 48,471,881	34.8388691%	\$ 12,665,291
<b>Non-Residential Programs</b>							
<b>EE Programs (at 50% Avoided Cost)</b>							
10	Smart Saver® for Non-Residential Customers Lighting	12,689	73,807,092	\$ 15,930,066	\$ 31,860,133	72.7194575%	\$ 11,584,258
11	Smart Saver® for Non-Residential Customers Motors	1,132	5,967,650	\$ 1,386,295	\$ 2,772,590	72.7194575%	\$ 1,008,106
12	Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	-	-	\$ -	\$ -	72.7194575%	\$ -
13	Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	366	1,950,854	\$ 513,211	\$ 1,026,423	72.7194575%	\$ 373,205
14	Smart Saver® for Non-Residential Customers - HVAC	1,716	4,120,481	\$ 2,004,592	\$ 4,009,184	72.7194575%	\$ 1,457,728
15	Smart Saver® for Non-Residential Customers - Custom Rebate	15,371	113,380,706	\$ 24,480,159	\$ 48,960,318	72.7194575%	\$ 17,801,839
16	Smart Energy Now	775	4,127,229	\$ 488,200	\$ 976,400	72.7194575%	\$ 355,016
17	<b>Total for Non-Residential Conservation Programs</b>	<b>32,049</b>	<b>203,354,011</b>	<b>\$ 44,802,524</b>	<b>\$ 89,605,047</b>		<b>\$ 32,580,152</b>
				System Avoided Cost Revenue Requirement @ 75%	System Avoided Cost @ 100%	NC Non-Residential Peak Demand Allocation Factor (McGee Exhibit 5, Pg. 4)	A18* C18
18	<b>Total DSM Programs (at 75% Avoided Cost)</b>	645,443		\$ 36,353,911	\$ 48,471,881	39.8808428%	\$ 14,498,246
<b>Total DSM Program Breakdown</b>							
				System Avoided Cost Revenue Requirement @ 75%	System Avoided Cost @ 100%	NC Retail Peak Demand Allocation Factor (McGee Exhibit 5, Pg.4)	A21* C21
19	Power Manager (Residential)	268,706	-	\$ 15,134,607	\$ 20,179,477		
20	Power Share (Non-Residential)	376,736	-	\$ 21,219,303	\$ 28,292,404		
21	<b>Total DSM</b>	<b>645,443</b>	<b>-</b>	<b>\$ 36,353,911</b>	<b>\$ 48,471,881</b>	<b>74.7197120%</b>	<b>\$ 27,163,537</b>

(1) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak  
Note: Schedule may not foot due to rounding

Duke Energy Carolinas, LLC  
EE Vintage 4 (January 1, 2013 - December 31, 2013)  
Docket Number E-7, Sub 1050  
Load Impacts and Avoided Cost Revenue Requirements by Program

Line	Program	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement @		NC Retail kWh Sales Allocation Factor (McGee Exhibit 5, Pg. 5)	NC Residential Avoided Costs A * C
				50%	100%		
<b>Residential Programs</b>							
<b>EE Programs (at 50% Avoided Cost)</b>							
1	Appliance Recycling	1,711	9,220,903	\$ 1,875,323	\$ 3,750,646	72.5649061%	\$ 1,360,826
2	Residential Energy Assessments	1,426	7,688,605	\$ 2,022,135	\$ 4,044,269	72.5649061%	\$ 1,467,360
3	Smart Saver® for Residential Customers	13,354	123,621,626	\$ 15,395,490	\$ 30,790,981	72.5649061%	\$ 11,171,723
4	Low Income Energy Efficiency and Weatherization Assistance	-	-	\$ -	\$ -	72.5649061%	\$ -
5	Residential Neighborhood Program	515	2,777,665	\$ 508,749	\$ 1,017,498	72.5649061%	\$ 369,173
6	Energy Efficiency Education Program for Schools	1,011	5,450,099	\$ 998,224	\$ 1,996,448	72.5649061%	\$ 724,360
7	Home Energy Comparison Report (My Home Energy Report)	23,752	112,214,255	\$ 4,800,549	\$ 9,601,098	72.5649061%	\$ 3,483,514
8	<b>Total for Residential Conservation Programs</b>	<b>41,770</b>	<b>260,973,153</b>	<b>\$ 25,600,470</b>	<b>\$ 51,200,939</b>		<b>\$ 18,576,957</b>
<b>9 Total DSM Programs (at 75% Avoided Cost)</b>							
		707,025		\$ 40,818,030	\$ 54,424,040	32.1711350%	\$ 13,131,623
<b>NC Non-Residential Avoided Costs</b>							
Line	Program	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement @		NC Retail kWh Sales Allocation Factor (McGee Exhibit 5, Pg. 5)	NC Non-Residential Avoided Costs A * C
				50%	100%		
<b>Non-Residential Programs</b>							
<b>EE Programs (at 50% Avoided Cost)</b>							
10	Smart Saver® for Non-Residential Customers Lighting	13,043	76,392,167	\$ 16,261,099	\$ 32,522,199	72.5649061%	\$ 11,799,851
11	Smart Saver® for Non-Residential Customers Motors	1,570	8,065,349	\$ 1,965,580	\$ 3,931,160	72.5649061%	\$ 1,426,321
12	Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	32	133,175	\$ 44,887	\$ 89,774	72.5649061%	\$ 32,572
13	Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	209	1,132,425	\$ 335,181	\$ 670,363	72.5649061%	\$ 243,224
14	Smart Saver® for Non-Residential Customers - HVAC	1,912	5,081,170	\$ 2,277,985	\$ 4,555,969	72.5649061%	\$ 1,653,017
15	Smart Saver® for Non-Residential Customers - Custom Rebate	13,250	100,660,054	\$ 22,278,186	\$ 44,556,371	72.5649061%	\$ 16,166,144
16	<b>Total for Non-Residential Conservation Programs</b>	<b>30,017</b>	<b>191,464,340</b>	<b>\$ 43,162,918</b>	<b>\$ 86,325,836</b>		<b>\$ 31,321,131</b>
<b>17 Total DSM Programs (at 75% Avoided Cost)</b>							
		707,025		\$ 40,818,030	\$ 54,424,040	42.3392872%	\$ 17,282,063
<b>Total DSM Program Breakdown</b>							
18	Power Manager (Residential)	328,993	-	\$ 18,993,470	\$ 25,324,627		
19	Power Share (Non-Residential)	378,032	-	\$ 21,824,560	\$ 29,099,413		
20	<b>Total DSM</b>	<b>707,025</b>	<b>-</b>	<b>\$ 40,818,030</b>	<b>\$ 54,424,040</b>	<b>74.5104222%</b>	<b>\$ 30,413,686</b>

(1) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak  
Note: Schedule may not foot due to rounding

Duke Energy Carolinas, LLC  
Vintage 2015 Estimate for January 1, 2015 to December 31, 2015  
Docket Number E-7, Sub 1050  
Load Impacts and Estimated Revenue Requirements, excluding Lost Revenue by Program

	A	B	C	D= B+C	E	NC Residential Revenue Requirement		
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Cost	System Cost	Earned Utility Incentive	System Cost Plus Incentive	NC Retail kWh Sales Allocation Factor (McGee Exhibit 5 pg. 5)	D * E
<b>Residential Programs</b>								
<b>EE Programs</b>								
1 Appliance Recycling Program	3,949	16,819,425	\$ 10,023,501	\$ 2,332,566	\$ 884,458	\$ 3,217,024	72.5649061%	\$ 2,334,430
2 Energy Efficiency Education	632	6,016,227	\$ 4,326,421	\$ 2,052,544	\$ 261,496	\$ 2,314,040	72.5649061%	\$ 1,679,181
3 Energy Efficient Appliances and Devices	3,256	30,662,529	\$ 12,127,296	\$ 6,464,750	\$ 651,193	\$ 7,115,943	72.5649061%	\$ 5,163,678
4 HVAC Energy Efficiency	3,066	5,425,996	\$ 8,716,773	\$ 6,773,101	\$ 223,522	\$ 6,996,623	72.5649061%	\$ 5,077,093
5 Income Qualified Energy Efficiency and Weatherization Assistance	2,225	10,208,640	\$ 5,770,580	\$ 11,186,960	\$ -	\$ 11,186,960	72.5649061%	\$ 8,117,807
6 Multi-Family Energy Efficiency	872	10,489,961	\$ 6,052,906	\$ 3,030,183	\$ 347,613	\$ 3,377,796	72.5649061%	\$ 2,451,094
7 Energy Assessments	610	4,928,548	\$ 5,825,398	\$ 1,860,054	\$ 456,015	\$ 2,316,069	72.5649061%	\$ 1,680,653
8 Subtotal	14,610	84,551,326	\$ 52,842,875	\$ 33,700,157	\$ 2,824,297	\$ 36,524,454		\$ 26,503,936
9 My Home Energy Report (1)	35,517	151,281,311	\$ 12,483,618	\$ 8,586,742	\$ 448,141	\$ 9,034,883	72.5649061%	\$ 6,556,154
10 Total for Residential Energy Efficiency Programs	50,127	235,832,637	\$ 65,326,493	\$ 42,286,899	\$ 3,272,438	\$ 45,559,337		\$ 33,060,090
<b>NC Residential Peak Demand Allocation Factor (McGee Exhibit 5 pg. 5)</b>								
<b>D11* E11</b>								
11 Total DSM Programs (2)	895,146	-	127,482,542	\$ 38,955,517	\$ 10,180,608	\$ 49,136,125	32.1711350%	\$ 15,807,649
12 Total Residential Revenue Requirement								\$ 48,867,739
<b>NC Non-Residential Revenue Requirement</b>								
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Cost	System Cost	Earned Utility Incentive	System Cost Plus Incentive	NC Retail kWh Sales Allocation Factor (McGee Exhibit 5 pg. 5)	D * E
<b>Non-Residential Programs</b>								
<b>EE Programs</b>								
13 Non Residential Smart Saver Custom Energy Assessments	1,881	16,476,952	\$ 7,991,672	\$ 3,919,646	\$ 468,283	\$ 4,387,929	72.5649061%	\$ 3,184,097
14 Non Residential Smart Saver Custom	8,417	73,730,939	\$ 37,745,738	\$ 9,364,687	\$ 3,263,821	\$ 12,628,508	72.5649061%	\$ 9,163,865
15 Energy Management Information Services	-	-	\$ -	\$ -	\$ -	\$ -	72.5649061%	\$ -
16 Non Residential Smart Saver Energy Efficient Food Service Products	99	1,369,327	\$ 602,495	\$ 216,096	\$ 44,436	\$ 260,532	72.5649061%	\$ 189,055
17 Non Residential Smart Saver Energy Efficient HVAC Products	2,435	6,286,567	\$ 9,041,557	\$ 1,493,540	\$ 868,022	\$ 2,361,562	72.5649061%	\$ 1,713,665
18 Non Residential Smart Saver Energy Efficient Lighting Products	11,509	69,215,950	\$ 39,177,468	\$ 7,561,028	\$ 3,635,891	\$ 11,196,919	72.5649061%	\$ 8,125,034
19 Non Residential Smart Saver Energy Efficient Pumps and Drives Products	724	5,982,928	\$ 2,406,778	\$ 788,841	\$ 186,063	\$ 974,904	72.5649061%	\$ 707,438
20 Non Residential Smart Saver Energy Efficient IT Products	113	4,598,650	\$ 1,348,650	\$ 543,297	\$ 92,616	\$ 635,913	72.5649061%	\$ 461,450
21 Non Residential Smart Saver Energy Efficient Process Equipment Products	16	80,184	\$ 60,403	\$ 20,850	\$ 4,549	\$ 25,399	72.5649061%	\$ 18,431
22 Total for Non-Residential Energy Efficiency Programs	25,194	177,741,497	\$ 98,374,761	\$ 23,907,986	\$ 8,563,681	\$ 32,471,667		\$ 23,563,035
<b>NC Non-Residential Peak Demand Allocation Factor (McGee Exhibit 5 pg. 5)</b>								
<b>D23*E23</b>								
23 Total DSM Programs(2)	895,146	-	\$ 127,482,542	\$ 38,955,517	\$ 10,180,608	\$ 49,136,125	42.3392872%	\$ 20,803,885
24 Total Non-Residential Revenue Requirement								\$ 44,366,920
<b>NC Retail Peak Demand Allocation Factor (McGee Exhibit 5 pg. 5)</b>								
<b>D28* E28</b>								
25 Power Manager (Residential)	407,690	-	\$ 58,083,740	\$ 14,126,216	\$ 5,055,115	\$ 19,181,331		
26 Power Share CallOption (Non-Residential)	33,990	-	\$ 4,615,635	\$ 2,174,587	\$ 280,721	\$ 2,455,308		
27 Power Share (Non-Residential)	453,466	-	\$ 64,783,167	\$ 22,654,714	\$ 4,844,772	\$ 27,499,486		
28 Total DSM	895,146	-	\$ 127,482,542	\$ 38,955,517	\$ 10,180,608	\$ 49,136,125	74.5104222%	\$ 36,611,534

(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintage

Duke Energy Carolinas, LLC  
For the Period June 1, 2009 - December 31, 2015  
Docket Number E-7, Sub 1050  
North Carolina Net Lost Revenues Summary

Vintage 1	Years 1 -2								
	2009	2010	2011	1 Mth 2012	2012	2013	2014 <sup>(a)</sup>	2015	Total
<b>Residential</b>									
1 Residential Energy Assessments	\$ 44,297	\$ 669,511	\$ 752,197	\$ 66,386	\$ -	\$ -	\$ -	\$ -	1,532,391
2 Smart Saver® for Residential Customers	92,993	5,073,454	15,613,579	1,378,657	-	-	-	-	22,158,682
3 Low Income Energy Efficiency and Weatherization Assistance	8,111	184,626	298,617	26,374	-	-	-	-	517,729
4 Energy Efficiency Education Program for Schools	980	52,034	109,867	9,700	-	-	-	-	172,582
5 Total Lost Revenues	146,381	5,979,625	16,774,260	1,481,117	-	-	-	-	24,381,383
6 Found Residential Revenues *	18,544	103,665	149,220	12,435	-	-	-	-	283,864
7 Net Lost Residential Revenues	\$ 127,837	\$ 5,875,960	\$ 16,625,040	\$ 1,468,682	\$ -	\$ -	\$ -	\$ -	24,097,519

Vintage 2	Years 1 -3								
	2009	2010	2011	1 Mth 2012	2012	2013	2014 <sup>(a)</sup>	2015	Total
<b>Non-Residential</b>									
8 Smart Saver® for Non-Residential Customers Lighting	\$ 267,995	\$ 1,568,968	\$ 2,140,019	\$ 179,572	\$ -	\$ -	\$ -	\$ -	4,156,555
9 Smart Saver® for Non-Residential Customers Motors	1,508	34,581	47,849	4,389	-	-	-	-	88,327
10 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	-	4	10	1	-	-	-	-	15
11 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	1,873	24,316	31,396	2,792	-	-	-	-	60,377
12 Smart Saver® for Non-Residential Customers - HVAC	4,441	61,038	114,704	10,212	-	-	-	-	190,394
13 Smart Saver® for Non-Residential Customers - Custom Rebate	170	129,797	423,378	38,673	-	-	-	-	592,018
14 Total Lost Revenues	275,987	1,818,705	2,757,356	235,639	-	-	-	-	5,087,686
15 Found Non-Residential Revenues*	196,302	1,171,619	1,621,460	135,122	-	-	-	-	3,124,503
16 Net Lost Non-Residential Revenues	\$ 79,685	\$ 647,086	\$ 1,135,896	\$ 100,517	\$ -	\$ -	\$ -	\$ -	1,963,183

Vintage 2	Years 1 -3								
	2009	2010	2011	1 Mth 2012	2012	2013 <sup>(a)</sup>	2014	2015	Total
<b>Residential</b>									
17 Residential Energy Assessments	\$ -	\$ -	\$ 199,106	\$ -	\$ 416,418	\$ 307,665	\$ -	\$ -	923,189
18 Smart Saver® for Residential Customers	-	-	7,082,986	-	17,639,492	13,038,388	-	-	37,760,866
19 Low Income Energy Efficiency and Weatherization Assistance	-	-	8,604	-	25,327	18,723	-	-	52,654
20 Energy Efficiency Education Program for Schools	-	-	26,046	-	56,110	41,483	-	-	123,639
21 Total Lost Revenues	-	-	7,316,742	-	18,137,348	13,406,259	-	-	38,860,348
22 Found Residential Revenues *	-	-	46,409	-	91,169	68,377	-	-	205,955
23 Net Lost Residential Revenues	\$ -	\$ -	\$ 7,270,333	\$ -	\$ 18,046,179	\$ 13,337,882	\$ -	\$ -	38,654,393

Vintage 2	Years 1 -3								
	2009	2010	2011	1 Mth 2012	2012	2013 <sup>(a)</sup>	2014	2015	Total
<b>Non-Residential</b>									
24 Smart Saver® for Non-Residential Customers Lighting	\$ -	\$ -	\$ 1,000,289	\$ -	\$ 2,128,947	\$ 1,513,470	\$ -	\$ -	4,642,706
25 Smart Saver® for Non-Residential Customers Motors	-	-	42,267	-	92,407	68,717	-	-	203,391
26 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	-	-	6,600	-	16,682	12,451	-	-	35,733
27 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	-	-	14,315	-	33,354	24,736	-	-	72,405
28 Smart Saver® for Non-Residential Customers - HVAC	-	-	53,349	-	151,187	112,125	-	-	316,661
29 Smart Saver® for Non-Residential Customers - Custom Rebate	-	-	595,732	-	1,414,842	1,051,495	-	-	3,062,069
30 Smart Energy Now	-	-	44,531	-	301,017	223,170	-	-	568,717
31 Total Lost Revenues	-	-	1,757,084	-	4,138,435	3,006,164	-	-	8,901,682
32 Found Non-Residential Revenues*	-	-	403,491	-	1,375,791	1,031,844	-	-	2,811,126
33 Net Lost Residential Revenues	\$ -	\$ -	\$ 1,353,593	\$ -	\$ 2,762,644	\$ 1,974,320	\$ -	\$ -	6,090,556



Vintage 3	Year 1, 2 Actuals and Year 4 estimated								
	2009	2010	2011	1 Mth 2012	2012	2013 <sup>(b)</sup>	2014	2015 <sup>(c)</sup>	Total
<b>Residential</b>									
34 Appliance Recycling	\$ -	\$ -	\$ -	\$ -	\$ 19,490	\$ 85,890	\$ -	\$ 32,489	\$ 137,869
35 Residential Energy Assessments	-	-	-	-	254,784	426,093	-	86,868	767,745
36 Smart Saver® for Residential Customers	-	-	-	-	6,953,367	8,778,975	-	1,419,687	17,152,029
37 Energy Efficiency Education Program for Schools	-	-	-	-	239,392	347,845	-	59,421	646,658
38 Home Energy Comparison Report	-	-	-	-	1,523,842	-	-	-	1,523,842
39 Total Lost Revenues	-	-	-	-	8,990,875	9,638,803	-	1,598,465	20,228,143
40 Found Residential Revenues *	-	-	-	-	32,870	39,069	-	2,511	74,450
41 Net Lost Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ 8,958,005	\$ 9,599,734	\$ -	\$ 1,595,954	\$ 20,153,693
<b>Non-Residential</b>									
42 Smart Saver® for Non-Residential Customers Lighting	\$ -	\$ -	\$ -	\$ -	\$ 978,762	\$ 1,802,026	\$ -	\$ 434,292	\$ 3,215,080
43 Smart Saver® for Non-Residential Customers Motors	-	-	-	-	64,385	149,423	-	41,972	255,780
44 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	-	-	-	-	-	-	-	-	-
45 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	-	-	-	-	14,096	33,513	-	12,079	59,688
46 Smart Saver® for Non-Residential Customers - HVAC	-	-	-	-	70,330	120,077	-	28,068	218,475
47 Smart Saver® for Non-Residential Customers - Custom Rebate	-	-	-	-	1,656,364	3,192,244	-	767,433	5,616,041
48 Smart Energy Now	-	-	-	-	184,623	128,956	-	-	313,579
49 Total Lost Revenues	-	-	-	-	2,968,560	5,426,239	-	1,283,844	9,678,643
50 Found Non-Residential Revenues *	-	-	-	-	446,834	764,322	-	78,560	1,289,716
51 Net Lost Non-Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ 2,521,726	\$ 4,661,917	\$ -	\$ 1,205,284	\$ 8,388,927
<b>Year 1 actual and year 3 estimate</b>									
Vintage 4	2009	2010	2011	1 Mth 2012	2012	2013	2014	2015 <sup>(a)</sup>	Total
<b>Residential</b>									
52 Appliance Recycling	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 194,211	\$ -	\$ 465,993	\$ 660,204
53 Residential Energy Assessments	-	-	-	-	-	178,347	-	364,884	543,231
54 Smart Saver® for Residential Customers	-	-	-	-	-	3,029,976	-	6,038,152	9,068,128
55 Low Income Energy Efficiency and Weatherization Assistance	-	-	-	-	-	-	-	-	-
56 Residential Neighborhood Program	-	-	-	-	-	29,835	-	110,316	140,151
57 Energy Efficiency Education Program for Schools	-	-	-	-	-	136,778	-	250,641	387,419
58 Home Energy Comparison Report	-	-	-	-	-	7,213,194	-	-	7,213,194
59 Total Lost Revenues	-	-	-	-	-	10,782,341	-	7,229,987	18,012,328
60 Found Residential Revenues *	-	-	-	-	-	37,734	-	62,414	100,148
61 Net Lost Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,744,607	\$ -	\$ 7,167,573	\$ 17,912,180
<b>Non-Residential</b>									
62 Smart Saver® for Non-Residential Customers Lighting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,392,836	\$ -	\$ 2,814,411	\$ 4,207,247
63 Smart Saver® for Non-Residential Customers Motors	-	-	-	-	-	83,031	-	174,971	258,002
64 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	-	-	-	-	-	1,867	-	6,503	8,370
65 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	-	-	-	-	-	14,256	-	37,835	52,091
66 Smart Saver® for Non-Residential Customers - HVAC	-	-	-	-	-	91,832	-	213,221	305,053
67 Smart Saver® for Non-Residential Customers - Custom Rebate	-	-	-	-	-	1,328,462	-	3,010,720	4,339,182
68 Smart Energy Now	-	-	-	-	-	-	-	-	-
69 Total Lost Revenues	-	-	-	-	-	2,912,284	-	6,257,661	9,169,945
70 Found Non-Residential Revenues *	-	-	-	-	-	256,895	-	393,164	650,059
71 Net Lost Non-Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,655,389	\$ -	\$ 5,864,497	\$ 8,519,886

\* Found Revenues - see Duff Exhibit 4

(a) Vintage 2 Year 3 Lost Revenues represent January - September 24, 2013.

(b) Vintage 3 Year 2 Lost Revenues were based on Participants Jan-Jun'12 for Lost revenues until Sept. 24, 2013 and participants July - December 2012 for full year

(c) Vintage 3 Year 4 Lost Revenues represent only a 1/2 year for July - December 2012 participants due to half year convention used for Year 1 lost revenues

(d) Estimated Lost Revenues were estimated by allocating estimated system Lost Revenues per kWh sales. See McGee Exhibit 5 Page 5 72.5649061%

Duff Exhibit 2 pg 2

Duke Energy Carolinas, LLC  
For the Period January 1, 2015 - December 31, 2015  
Docket Number E-7, Sub 1050  
North Carolina Net Lost Revenue Estimates for Vintages 2014 and 2015

Line	Residential	Vintage 2014	
			Year 2
1	Energy Assessments	\$	234,407
2	My Home Energy Report		-
3	Energy Efficient Appliances and Devices		1,312,802
4	HVAC Energy Efficiency		249,615
5	Appliance Recycle Program		799,949
6	Income Qualified Energy Efficiency and Weatherization Assistance		522,101
7	Multi-Family Energy Efficiency		471,994
8	Energy Efficiency Education		286,135
9	Total Lost Revenues		3,877,003
10	Found Residential Revenues *		66,054
11	Net Lost Residential Revenues	\$	<b>3,810,949</b>

Non-Residential		Year 2	
12	Non Residential Smart Saver Custom Energy Assessments	\$	432,469
13	Non Residential Smart Saver Custom		1,935,145
14	Energy Management Information Services		97,730
15	Non Residential Smart Saver Energy Efficient Food Service Products		31,378
16	Non Residential Smart Saver Energy Efficient HVAC Products		169,337
17	Non Residential Smart Saver Energy Efficient Lighting Products		1,981,220
18	Non Residential Smart Saver Energy Efficient Pumps and Drives Products		151,287
19	Non Residential Smart Saver Energy Efficient IT Products		82,353
20	Non Residential Smart Saver Energy Efficient Process Equipment Products		2,525
21	Total Lost Revenues		4,883,444
22	Found Non-Residential Revenues *		46,091
23	Net Lost Non-Residential Revenues	\$	<b>4,837,353</b>

Line	Residential	Vintage 2015	
			Year 1
24	Energy Assessments	\$	117,203
25	My Home Energy Report		7,195,091
26	Energy Efficient Appliances and Devices		729,170
27	HVAC Energy Efficiency		129,033
28	Appliance Recycle Program		399,974
29	Income Qualified Energy Efficiency and Weatherization Assistance		242,767
30	Multi-Family Energy Efficiency		249,457
31	Energy Efficiency Education		143,069
32	Total Lost Revenues		9,205,764
33	Found Residential Revenues *		35,924
34	Net Lost Residential Revenues	\$	<b>9,169,840</b>

Non-Residential		Year 1	
35	Nonresidential Smart Saver Custom Energy Assessments	\$	227,042
36	Non Residential Smart Saver Custom		1,015,964
37	Energy Management Information Services		-
38	Non Residential Smart Saver Energy Efficient Food Service Products		19,705
39	Non Residential Smart Saver Energy Efficient HVAC Products		89,689
40	Non Residential Smart Saver Energy Efficient Lighting Products		1,052,048
41	Non Residential Smart Saver Energy Efficient Pumps and Drives Products		79,426
42	Non Residential Smart Saver Energy Efficient IT Products		63,320
43	Non Residential Smart Saver Energy Efficient Process Equipment Products		1,317
44	Total Lost Revenues		2,548,511
45	Found Non-Residential Revenues *		25,031
46	Net Lost Non-Residential Revenues	\$	<b>2,523,480</b>

**Duke Energy Carolinas, LLC**  
**For the Period June 1, 2009 - December 31, 2013**  
**Docket Number E-7 Sub 1050**  
**Actual Program Costs for SAW programs**

Line	SAW PROGRAMS		Carolinas System Costs - 6/1/2009 - 12/31/2009	Carolinas System Costs - 12 Months Ended 12/31/2010	Carolinas System Costs - 12 Months Ended 12/31/2011	Carolinas System Costs - 12 Months Ended 12/31/2012	Carolinas System Costs - 12 Months Ended 12/31/2013
1	Residential Energy Assessments		\$ 2,012,300	\$ 2,644,227	\$ 2,680,325	\$ 2,820,270	\$ 2,721,093
2	Residential Home Retrofit		-	-	119,334	158,086	5,817
3	Residential Neighborhood Program		-	-	-	110,485	603,050
4	Home Energy Comparison Report		-	-	714,262	3,026,124	7,473,991
5	Residential Smart Saver		2,651,125	26,087,337	23,107,429	19,587,897	14,404,833
6	Appliance Recycle Program		-	-	-	303,920	1,816,101
7	Low Income Services		106,999	398,437	1,302	20,256	9,855
8	Energy Efficiency Education		2,147,159	2,283,819	795,083	2,906,659	2,039,381
9	Nonresidential Energy Assessments		162,538	1,115,743	2,530,485	1,473,459	754,255
10	Nonresidential Smart Energy Now		-	-	2,078,784	1,066,811	1,328,660
11	Nonresidential Smart Saver		1,839,259	7,019,096	12,199,001	19,068,456	17,687,940
12	Power Manager		2,333,129	9,463,713	14,455,621	12,596,325	12,771,798
13	Power Share		762,569	8,024,103	13,855,180	15,462,796	15,084,036
14	<b>Total Energy Efficiency &amp; Demand Side Program Costs</b>	Sum (Lines 1-13)	<b>\$ 12,015,078</b>	<b>\$ 57,036,475</b>	<b>\$ 72,536,806</b>	<b>\$ 78,601,544</b>	<b>\$ 76,700,809</b>
15	NC Allocation Factor for EE programs	McGee Exhibit 5	73.0077318%	72.7072722%	72.6972151%	72.7194575%	72.5649061%
16	NC Allocation Factor for DSM programs-Residential	McGee Exhibit 5	33.9010659%	34.4404513%	32.2293181%	34.8388691%	32.1711350%
17	NC Allocation Factor for DSM programs-Non-Residential	McGee Exhibit 5	39.9179344%	40.3489126%	42.2350050%	39.8808428%	42.3392872%
			<b>NC Allocated Costs - 6/1/2009 - 12/31/2009</b>	<b>NC Allocated Costs - 12 Months Ended 12/31/2010</b>	<b>NC Allocated Costs - 12 Months Ended 12/31/2011</b>	<b>NC Allocated Costs - 12 Months Ended 12/31/2012</b>	<b>NC Allocated - 12 Months Ended 12/31/2013</b>
18	Residential Energy Assessments	Line 1*Line 15	\$ 1,469,135	\$ 1,922,545	\$ 1,948,522	\$ 2,050,885	\$ 1,974,559
19	Residential Home Retrofit	Line 2*Line 15	-	-	86,752	114,959	4,221
20	Residential Neighborhood Program	Line 3*Line 15	-	-	-	80,344	437,603
21	Home Energy Comparison Report	Line 4*Line 15	-	-	519,249	2,200,581	5,423,494
22	Residential Smart Saver	Line 5*Line 15	1,935,526	18,967,391	16,798,457	14,244,212	10,452,853
23	Appliance Recycle Program	Line 6*Line 15	-	-	-	221,009	1,317,852
24	Low Income Services	Line 7*Line 15	78,118	289,693	947	14,730	7,151
25	Energy Efficiency Education	Line 8*Line 15	1,567,592	1,660,502	578,003	2,113,707	1,479,875
26	Nonresidential Energy Assessments	Line 9*Line 15	118,665	811,226	1,839,592	1,071,491	547,325
27	Nonresidential Smart Energy Now	Line 10*Line 15	-	-	1,511,218	775,779	964,141
28	Nonresidential Smart Saver	Line 11 * Line 15	1,342,801	5,103,393	8,868,334	13,866,478	12,835,237
29	Power Manager	(Line 12+ Line 13)*Line 16	1,049,475	6,022,883	9,124,378	9,775,480	8,961,538
30	Power Share	(Line 12+ Line 13)*Line 17	1,235,739	7,056,144	11,957,068	11,190,214	11,793,961
31	<b>Total Energy Efficiency &amp; Demand Side Program Costs</b>	Sum (Lines 18-30)	<b>\$ 8,797,050</b>	<b>\$ 41,833,777</b>	<b>\$ 53,232,520</b>	<b>\$ 57,719,870</b>	<b>\$ 56,199,810</b>

Duff Exhibit 3 pg 2

**Duke Energy Carolinas, LLC**  
**For the Period January 1, 2014 - December 31, 2015**  
**Docket Number E-7 Sub 1050**  
**Estimated Program Costs for Vintage Years 2014 and 2015**

**Carolinas System  
estimated - 12  
Months Ended  
12/31/2015**

1	Residential Energy Assessments		\$ 1,860,054
2	My Home Energy Report		8,586,742
3	Energy Efficient Appliances and Devices		6,464,750
4	HVAC Energy Efficiency		6,773,101
5	Appliance Recycle Program		2,332,566
6	Income Qualified Energy Efficiency and Weatherization Assistance		11,186,960
7	Multi-Family Energy Efficiency		3,030,183
8	Energy Efficiency Education		2,052,544
9	Nonresidential Smart Saver Custom Energy Assessments		3,919,646
10	Energy Management Information Systems		-
11	Nonresidential Smart Saver		18,635,351
12	Nonresidential Energy Efficient Pumps and Drives Products		788,841
13	Nonresidential Energy Efficient ITEE		543,297
14	Nonresidential Energy Efficient Process Equipment Products		20,850
15	Power Manager		14,126,216
16	Power Share		24,829,301
17	<b>Total Energy Efficiency &amp; Demand Side Program Costs</b>	sum(Lines 1-16)	<b><u>\$ 105,150,402</u></b>

18	NC Allocation Factor for EE programs	McGee Exhibit 5 Pg 5, Line 4	72.5649061%
19	NC Allocation Factor for DSM programs-Residential	McGee Exhibit 5 Pg 5, Line 9	32.1711350%
20	NC Allocation Factor for DSM programs-Non-Residential	McGee Exhibit 5 Pg 5, Line 10	42.3392872%

**NC Allocated - 12  
Months Ended  
12/31/2015**

21	Residential Energy Assessments	Line 1 * Line 18	\$ 1,349,746
22	My Home Energy Report	Line 2 * Line 18	6,230,961
23	Energy Efficient Appliances and Devices	Line 3 * Line 18	4,691,140
24	HVAC Energy Efficiency	Line 4 * Line 18	4,914,894
25	Appliance Recycle Program	Line 5 * Line 18	1,692,624
26	Income Qualified Energy Efficiency and Weatherization Assistance	Line 6 * Line 18	8,117,807
27	Multi family Energy Efficiency	Line 7 * Line 18	2,198,849
28	Energy Efficiency Education	Line 8 * Line 18	1,489,427
29	Nonresidential Smart Saver Custom Technical Assessments	Line 9 * Line 18	2,844,287
30	Energy Management Information Services	Line 10 * Line 18	-
31	Nonresidential Smart Saver	Line 11 * Line 18	13,522,725
32	Nonresidential Energy Efficient Pumps and Drives Products	Line 12 * Line 18	572,422
33	Nonresidential Energy Efficient ITEE	Line 13 * Line 18	394,243
34	Nonresidential Energy Efficient Process Equipment Products	Line 14 * Line 18	15,130
35	Power Manager	(Line 15 + Line 16)* Line 19	12,532,432
36	Power Share	(Line 15 + Line 16) * Line 20	16,493,488
37	<b>Total Energy Efficiency &amp; Demand Side Program Costs</b>	Sum (Lines 21-36)	<b><u>\$ 77,060,176</u></b>

Duff Exhibit 4

**Duke Energy Carolinas, LLC**  
**June 2009 - December 2013 Actuals**  
**January 2014 - December 2015 Estimates**  
**Docket Number E-7, Sub 1050**  
**North Carolina Found Revenues**

	Actual/Reported KWH					Estimated KWH		Decision Tree Node
	2009	2010	2011	2012	2013	2014	2015	
Boilers (unmetered)	575,990	-	-	-	-	-	-	Box 6 - include
Boilers (metered)	-	-	-	-	-	-	-	Box 6 - include
Economic Development	93,990,900	104,307,244	117,082,542	416,539,426	136,948,900	-	-	Box 5 - exclude
Plug-in Electric Charging Station Pilot	-	-	8,246	218,311	238,696	238,696	-	Box 3 - exclude
Food Service	693,553	949,022	723,338	1,204,245	712,711	-	-	Box 6 - include
Process Heat	31,014	1,783,740	2,973,046	1,002,303	162,109	-	-	Box 6 - include
Lighting	-	-	-	-	-	-	-	
Residential	102,492	169,991	162,984	76,420	93,396	93,396	93,396	Box 6 - include
Non Residential (Regulated)	112,286	175,553	129,669	77,433	60,528	103,762	103,762	Box 6 - include
Non Residential (Non Regulated)	3,630	3,630	2,146	-	-	-	-	Box 6 - include
<b>Total KWH</b>	<b>95,509,866</b>	<b>107,389,180</b>	<b>121,081,971</b>	<b>419,118,139</b>	<b>138,216,340</b>	<b>435,855</b>	<b>197,158</b>	
<b>Total KWH Included</b>	<b>1,518,966</b>	<b>3,081,936</b>	<b>3,991,183</b>	<b>2,360,401</b>	<b>1,028,744</b>	<b>197,158</b>	<b>197,158</b>	
<b>Total KWH Included (net of Free Riders 15%)</b>	<b>1,291,121</b>	<b>2,619,646</b>	<b>3,392,506</b>	<b>2,006,341</b>	<b>874,432</b>	<b>167,585</b>	<b>167,585</b>	
<b>Annualized Found Revenue - Non Residential</b>	<b>\$ 509,839</b>	<b>\$ 1,111,621</b>	<b>\$ 1,375,791</b>	<b>\$ 970,568</b>	<b>\$ 393,164</b>	<b>\$ 46,091</b>	<b>\$ 46,212</b>	
<b>Annualized Found Revenue - Residential</b>	<b>\$ 55,308</b>	<b>\$ 93,912</b>	<b>\$ 91,169</b>	<b>\$ 49,611</b>	<b>\$ 62,414</b>	<b>\$ 66,054</b>	<b>\$ 66,321</b>	
	2009	2010	2011	2012	2013	2014	2015	
Vintage 1 -2009 - Non Res	\$ 196,302	509,839	509,839	313,537				
Vintage 1 -2010 - Non Res		\$ 661,779	1,111,621	1,111,621	449,841			
Vintage 2011 - Non Res			\$ 403,491	1,375,791	1,375,791	972,300		
Vintage 2012 - Non Res				\$ 446,834	970,568	970,568	523,734	
Vintage 2013 - Non Res					\$ 256,895	393,164	393,164	
Vintage 2014 - Non Res						24,966	46,091	
Vintage 2015 - Non Res							25,031	
Vintage 2016 - Non Res								
Vintage 2017 - Non Res								
<b>Rate Case Adjustment - Non Res *</b>				(1,290,036)	(1,000,035)	(1,797,283)	(445,174)	
<b>Subtotal - Non Res</b>	<b>\$ 196,302</b>	<b>\$ 1,171,619</b>	<b>\$ 2,024,951</b>	<b>\$ 1,957,747</b>	<b>\$ 2,053,061</b>	<b>\$ 563,714</b>	<b>\$ 542,846</b>	
Vintage 1 -2009 - Residential	\$ 18,544	55,308	55,308	36,764				
Vintage 1 -2010 - Residential		\$ 48,357	93,912	93,912	45,556			
Vintage 2011 - Res			\$ 46,409	91,169	91,169	44,760		
Vintage 2012 - Res				\$ 32,870	49,611	49,611	16,741	
Vintage 2013 - Res					\$ 37,734	62,414	62,414	
Vintage 2014 - Res						35,779	66,054	
Vintage 2015 - Res							35,924	
Vintage 2016 - Res								
Vintage 2017 - Res								
<b>Rate Case Adjustment - Residential *</b>				(118,241)	(78,890)	(86,929)	(14,230)	
<b>Subtotal - Residential</b>	<b>\$ 18,544</b>	<b>\$ 103,664</b>	<b>\$ 195,629</b>	<b>\$ 136,474</b>	<b>\$ 145,179</b>	<b>\$ 105,634</b>	<b>\$ 166,903</b>	
<b>Total Found Revenues</b>	<b>\$ 214,846</b>	<b>\$ 1,275,283</b>	<b>\$ 2,220,580</b>	<b>\$ 2,094,220</b>	<b>\$ 2,198,240</b>	<b>\$ 669,349</b>	<b>\$ 709,748</b>	

\* Removes amounts to be recovered in base rates.

Duff Exhibit 5

**Duke Energy Carolinas**  
**System Event Based Demand Response January 1, 2013 - December 31, 2013**  
**Docket Number E-7, Sub 1050**

Date	State	Program Name	Event Trigger	High Temperature	Customers Notified	Customers Enrolled	MW Reduction
7/18/2013	NC	Power Manager	High Prices	89.7	N/A	129,398	115.9
7/19/2013	NC	Power Manager	High Prices	89.7	N/A	129,398	112.3
7/24/2013	NC and SC	Power Manager	High Prices	90.0	N/A	178,289	150.4
8/12/2013	NC and SC	Power Manager	High Prices	91.0	N/A	177,924	157.6
8/29/2013	NC and SC	Power Manager	High Prices	91.0	N/A	178,283	157.4
9/10/2013	NC and SC	Power Manager	High Prices	88.3	N/A	178,109	142.5
9/11/2013	NC and SC	Power Manager	High Prices	88.7	N/A	178,109	123.0

**Note:**

A loss adjustment has been included in the MW values.

The high temperature is the average of the daily high temperatures from 3 weather stations (Charlotte, Greensboro, Greenville/Spartanburg).

The values for MW reduction are based on the average across the hours of the event.

Customers Notified is the number of participants notified that they should participate or have the opportunity to participate in the event.

For Power Manager events, the Customer Enrolled value represents the load control devices activated for the event.

## Executive Summary

### A. Description

During the 2014 first quarter Duke Energy Carolinas Collaborative meeting, Duke Energy Carolinas, LLC (the "Company") will provide an update on the performance of its energy efficiency and demand side management programs during Vintage 4. Product managers have prepared reports on each of our pilot/programs describing the offerings and details on pilot/program performance. This Executive Summary describes how the Company performed in regards to the energy efficiency and demand side management program performance during Vintage 4 in comparison to as filed information. Pilot/program details are in the individual reports.

#### Pilot/program reports include:

Program	Category	Customer
Non-Residential Smart \$aver Prescriptive	EE	Non-residential
Non-Residential Smart \$aver Custom	EE	Non-residential
Smart Energy Now Pilot	EE	Non-residential
PowerShare	DSM	Non-residential
Residential Energy Assessments	EE	Residential
Residential Smart \$aver Program	EE	Residential
Low Income Energy Efficiency and Weatherization Assistance Program	EE	Residential
Energy Efficiency Education Programs for Schools	EE	Residential
My Home Energy Report	EE	Residential
Appliance Recycling Program	EE	Residential
Residential Neighborhood Program	EE	Residential
Power Manager	DSM	Residential

### Audience

All retail Duke Energy Carolinas customers who have not opted out.

### B & C. Impacts, Participants and Expenses

North Carolina System Summary <sup>1</sup>			
<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
Nominal Avoided Cost	\$313.6	\$241.0	77%
Program Cost <sup>2</sup>	\$112.9	\$76.7	68%
MW from Vintage 4 <sup>3</sup>	693	779	112%
Incremental EE MW from Vintage 3 <sup>3</sup>	70	69	99%
Incremental EE MW from Vintage 2 <sup>3</sup>	43	64	139%
Incremental EE MW from Vintage 1 <sup>3</sup>	38	59	170%
Total MW Achieved <sup>4</sup>	844	972	115%
MWH	567,194	452,437	80%
Units		4,871,988	

#### Notes on Tables:

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V.
- 3) As filed MW are annual maximum peak. We track coincident peak for impacts.
- 4) Per the original SAW filings, Vintage 4 MW targets include MW achieved from Vintage 1, Vintage 2 and Vintage 3 conservation programs.

## Executive Summary

<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
Nominal Avoided Cost	\$268.6	\$186.6	69%
Program Cost <sup>2</sup>	\$92.5	\$48.5	52%
MW <sup>3</sup>	108.2	71.8	66%
MWH	567,194	452,437	80%
Units		4,687,757	

**Notes on Table:**  
1) Numbers rounded.  
2) As filed program costs do not include M&V. Actual costs may include M&V.  
3) As filed MW are annual maximum peak. We track coincident peak for impacts.

<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
Nominal Avoided Cost	\$45.0	\$54.4	121%
Program Cost <sup>2</sup>	\$20.4	\$28.2	138%
MW <sup>3</sup>	585.1	707.0	121%
MWH	N/A	N/A	
Units		184,231	

**Notes on Tables:**  
1) Numbers rounded.  
2) As filed program costs do not include M&V. Actual costs may include M&V.  
3) MW capability derived by taking average over PowerShare and PowerManager contract period.

The tables below include actual results for Vintage 4 in comparison to as filed data for Vintage 4. The Company has included nominal avoided cost rather than present value of the avoided cost because the Company's targets for save-a-watt purposes are based on nominal dollars. Please note that because North Carolina and South Carolina have slightly different avoided costs rates, the targets for each are different.

The Company has not included the number of participants from the filing as well as the percentage of target for participants in these reports. The reason for this is because participation for individual measures can represent, for example, one CFL bulb in one measure or one six pack in another. Due to the multiple measures in programs, this can skew participation targets. To minimize confusion, this information was excluded from the report. Actual participants are included.

During the reported timeframe, the Company's achievements are below the avoided cost target for Vintage 4. The program costs are aligned with the achieved avoided cost for Vintage 4.

Energy efficiency impacts have primarily been driven by lighting measures in both the residential and non-residential space. This is a result of a higher take rate for lighting offerings than originally projected.

The DSM portfolio is comprised of the PowerShare (non-residential) and Power Manager (residential) programs. The Company significantly exceeded the as filed nominal avoided cost in North Carolina. Program costs are aligned in comparison to achieved nominal avoided cost.

Note: The EE portfolio kWh targets and DSM portfolio kW targets for North Carolina and South Carolina are different. While the North Carolina EE docket was never closed, the original South Carolina EE docket was closed, included in the South Carolina rate case, and was adjusted up after the North Carolina filing. Both states have limitations on how much DSM can count towards the four-year avoided cost, with South Carolina having a higher percentage due to the higher kW target.



## Executive Summary

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### **D. Qualitative Analysis**

#### **Highlights**

##### Energy Efficiency

To date, customer participation has been driven primarily by lighting and assessments programs. These measures provide customers with a relatively low cost efficiency upgrade, with minimal hassle, creating a positive initial energy efficiency experience. The Residential Smart \$aver program is above target in comparison to filed nominal avoided costs. The majority of impacts are related to lighting.

The Non-Residential Smart \$aver Custom program has achieved greater than expected participation. The established trade ally network has enabled the Company to minimize acquisition costs by using trade allies as an extended sales force. Providing the trade ally network information on our incentive structure has enabled them to market the incentives to customers. The Non-Residential Smart \$aver Custom program significantly exceeded target in comparison to filed nominal avoided costs.

##### Demand Side Management (DSM)

The Company exceeded as filed nominal avoided cost in both North Carolina for the Power Manager program and PowerShare program.

#### **Issues**

There have been a number of issues that have negatively impacted Company specific energy efficiency programs. These programs include Low Income Energy Efficiency and Weatherization Assistance Program, Residential Energy Assessments and Energy Efficiency Education Programs for Schools.

#### **Potential Changes**

Several programs are reviewing their current processes and are considering potential changes to increase customer adoption. Potential changes are discussed in individual program reports.

### **E. Marketing Strategy**

Located in individual reports.

### **F. Evaluation, Measurement and Verification**

Located in individual program reports.

# Non-Residential Smart \$aver Prescriptive

## A. Description

The Non-Residential Smart \$aver<sup>®</sup> Prescriptive Program ("Program") provides incentives to Duke Energy Carolinas, LLC's (the "Company") commercial and industrial customers to install high efficiency equipment in applications involving new construction and retrofits and to replace failed equipment. Incentives are provided based on the Company's cost effectiveness modeling to assure cost effectiveness over the life of the measure.

Commercial and industrial customers can have significant energy consumption but may lack knowledge and understanding of the benefits of high efficiency alternatives. The Program provides financial incentives to help reduce the cost differential between standard and high efficiency equipment, offer a quicker return on investment, save money on customers' utility bills that can be reinvested in their business, and foster a cleaner environment. In addition, the Program provides market demand where the dealers and distributors (or market providers) will stock and provide these high efficiency alternatives as they see increased demand for the products. Higher demand can result in lower prices.

The Program promotes prescriptive incentives for the following technologies – lighting, HVAC, pumps, variable frequency drives, food services and process equipment. Equipment and incentives are predefined based on current market assumptions and engineering analysis. The eligible measures, incentives and requirements for both equipment and customer eligibility are listed in the applications posted on the Company's Business and Large Business websites for each technology type.

Prior to 2013, the Company contracted with Wisconsin Energy Conservation Corporation ("WECC") to administer the fulfillment responsibilities of the Program and to provide training and technical support to the Company's trade ally network. Beginning January 2013, Ecova replaced WECC and retains responsibility for fulfillment activities and Trade Ally outreach and support.

## Audience

All of the Company's non-residential electric customers, except those that choose to opt out of the Program, are eligible.

## B & C. Impacts, Participants and Expenses

<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
<b>North Carolina Nominal Avoided Cost</b>	<b>\$80.4</b>	<b>\$59.6</b>	<b>74%</b>
<b>Program Cost<sup>2</sup></b>	<b>\$15.8</b>	<b>\$7.5</b>	<b>48%</b>
<b>MW<sup>3</sup></b>	<b>27.3</b>	<b>16.8</b>	<b>61%</b>
<b>MWH</b>	<b>95,343</b>	<b>90,804</b>	<b>95%</b>
<b>Units<sup>4</sup></b>		<b>306,812</b>	

**Notes on Table:**  
 1) Numbers rounded.  
 2) As filed program costs do not include M&V. Actual costs may include M&V. Program costs include approximately \$0.2M of Non-Residential Energy Assessments.  
 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

## D. Qualitative Analysis

### Highlights

Trade ally buy-in has proven to be the most effective way to promote the Program to the Company's business customers. At Program rollout, the Company and WECC took an aggressive approach to contact trade allies associated with the technologies in and around the Company's service territory. While recruitment of new trade allies remained a focus in 2013, existing relationships continued to be cultivated as well. Their company's name and contact information appear on the trade ally search tool located on the Program's website. This tool was designed to help customers, who are not aware of a local trade ally, locate a trade ally in their area who can serve their needs. The tool has been revised to incorporate

## Non-Residential Smart \$aver Prescriptive

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enhanced search criteria functionality. The Company continues to look for ways to engage the trade allies in promotion of the Program as well as more effective targeting of trade allies based on market opportunities.

During a focus group of lighting and mechanical trade allies that was conducted in December 2011, a suggestion was provided to develop an on-line application submission and status verification system. An on-line application and status verification platform is under development with Ecova. The launch of the platform will occur in 2014.

The Company recently launched a co-marketing trade ally campaign to encourage trade allies to include Smart Saver program messaging and information in their marketing. If trade ally marketing efforts are approved by Duke Energy program managers, the Company will pay up to 50% of the marketing cost.

The Company launched the Duke Energy Savings Store (Store) via the web. The Store provides customers an opportunity to take advantage of a limited number of incentive measures by purchasing qualified products from an on-line store and receiving an instant incentive that reduces the purchase price of the product. The incentives offered via the store will be consistent with current Program incentive levels.

Effective January 1, 2014, the Non-Residential Smart Saver Prescriptive programs offerings are categorized by technology. The technologies include information technology, lighting, HVAC, pumps, variable frequency drives, food services and process equipment

### **Issues**

Participation for lighting technology continues to be better than expected. However, the Program includes measures, such as process equipment, with little or no participation. HVAC participation is challenged given dependencies on failed equipment and facility expansions (existing and new construction) that result from measure design. The Company continues to work with outside consultants and internal resources to develop strategies to understand equipment supply/value chains and increase awareness of these measures going forward. Additionally, evaluations of alternative HVAC incentive designs geared to drive early equipment replacements continue. In 2013, the Program resulted in a significant increase in participation for guestroom energy management controls.

### **Potential Changes**

Standards continue to change and new more efficient technologies continue to emerge in the market. The Company will continue evaluating the opportunity to add measures to the approved Program that provide incentives for a broader suite of energy efficient products.

### **E. Marketing Strategy**

Non-residential customers are informed of programs via targeted marketing material and communications. Information about incentives is also distributed to trade allies, who in turn sell equipment and services to all sizes of nonresidential customers. Large business or assigned accounts are targeted primarily through assigned Company account managers. In January 2013, an additional responsibility was added to the North Carolina and South Carolina area outreach teammates to perform outreach to unassigned small and medium business customers. Program managers for this Program believe that this type of engagement will increase participation with small and medium business customers. In 2014, the Company plans to add additional internal roles to focus on increasing small to medium business participation.

The internal marketing channel is comprised of assigned Large Business Account Managers, Segment Managers and Local Government and Community Relations who all identify potential opportunities as well as distribute program collateral and informational material to customers and trade allies. In addition, the Economic and Business Development groups also provide a channel to customers who are new to the service territory.

### **Marketing Materials**

North Carolina Website

# Non-Residential Smart \$aver Prescriptive

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<http://www.duke-energy.com/north-carolina-business/smart-saver-incentive-program.asp>

South Carolina Website

<http://www.duke-energy.com/south-carolina-business/smart-saver-incentive-program.asp>

## **F. Evaluation, Measurement and Verification**

The impact and process evaluation results for the prescriptive measures of Linear Fluorescents and Occupancy Sensors were presented during the 2013 second quarter Duke Energy Carolinas Collaborative meeting held in June 2013. The process and impact evaluation report, dated April 5, 2013, is filed in Docket No. E-7, Sub 1050 as Ham Exhibit F.

## Non-Residential Smart Saver® Custom

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### A. Description

Duke Energy Carolinas, LLC's (the "Company") Non-Residential Smart Saver® Custom Incentives (the "Program") offers financial assistance to qualifying commercial, industrial and institutional customers (that have not opted out) to enhance their ability to adopt and install cost-effective electrical energy efficiency projects.

The Program is designed to meet the needs of the Company's customers with electrical energy saving projects involving more complicated or alternative technologies, or those measures not covered by the Non-Residential Smart Saver Prescriptive Program. The intent of the Program is to encourage the implementation of energy efficiency projects that would not otherwise be completed without the Company's technical or financial assistance.

The Program's application is for projects that are not addressed by the applications for the Non-Residential Smart Saver Prescriptive Program. Unlike the Non-Residential Smart Saver Prescriptive Program, the Program requires pre-approval prior to the project implementation. Proposed energy efficiency measures may be eligible for customer incentives if they clearly reduce electrical consumption and/or demand.

Currently, the following application forms are located on the Company's website under the Smart Saver Incentives (Business and Large Business tabs):

- Optional planning form that allows customers and their vendors to submit preliminary project information and receive feedback on potential eligibility and tips on filling out the application form.
- Custom Application offered in Word and pdf format with the designated worksheet in Excel format. Customers can request the worksheet in another format if preferred. Customers or their vendors submit the forms with supporting documentation. Forms are designed for multiple projects and multiple locations. Custom Incentive Application (doc or pdf), are submitted with one or more of the following worksheets:
  - Lighting worksheet (Excel)
  - Variable Speed Drive (VFD) worksheet (Excel)
  - Compressed Air worksheet (Excel)
  - Energy Management System (EMS) worksheet (Excel)
  - General worksheet (Excel) to be used for projects not addressed by or not easily submitted using one of the other worksheets

The Company contracts with Ecova to perform the administrative review of applications, fulfill payment requests, provide training and technical support to our Trade Ally network and provide call center services to customers who call the Program's toll free number which is specific to the Smart Saver Program. The engineering firm AESC performs the technical review of custom applications. All other analysis is performed internally at the Company.

### Audience

All of the Company's non-residential electric customers, except those that choose to opt out of the Program, are eligible.

## Non-Residential Smart Saver® Custom

### B & C. Impacts, Participants and Expenses

Smart Saver for Non-Residential Customers - Custom Rebate <sup>1</sup>			
<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
North Carolina Nominal Avoided Cost	\$30.9	\$65.8	213%
Program Cost <sup>2</sup>	\$14.9	\$10.6	71%
MW <sup>3</sup>	6.4	13.3	207%
MWH	40,264	100,660	250%
Units		27,484	

**Notes on Table:**

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V. Program costs include \$0.2M of Non Residential Energy Assessments.
- 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

### D. Qualitative Analysis

#### Highlights

Customers continue to identify energy efficiency offers eligible under this Program. Program results exceed as filed for Vintage 4. An average of 373 new pre-approval applications per month was received in 2013; the average is slightly lower than the average of 44 pre-approval applications per month in 2012. While the number of new pre-approval applications per month in 2013 are lower than 2012, the difference is driven mainly to the movement of several lighting measures from the Custom to the Prescriptive Program and the elimination of incentive offerings on certain lighting equipment that is now considered to be standard and no longer high efficiency. Additionally, South Carolinas activity ticked upward at the end of the year, hinting a possibility of increased application volumes in 2014. Customers are consistently investing in efficiency projects that are not addressed by the prescriptive incentives.

Efforts to educate the vendors who sell energy efficient equipment (trade allies) have been very successful. In many cases, the vendor will submit the paperwork for the customer which eliminates a barrier for customers that do not have the resources to devote to completing the application.

Historically, energy assessment efforts have been included as part of the total Custom Incentives portfolio. Effective January 1, 2014, projects with an energy assessment will be tracked and reported under the Non-Residential Smart Saver Custom Energy Assessment program. The Non-Residential Smart Saver Custom Energy Assessment program will identify and evaluate energy efficiency projects as well as offer financial assistance with implementation. Effective January 1, 2014, custom projects that do not require an assessment will be tracked and reported under the Non-Residential Smart Saver Custom program.

#### Issues

The Program application process is considered burdensome by some customers due to the technical review required for all projects applying for a custom incentive. The technical review often requires customers (or their vendor) to quantify the projected energy savings from the proposed project. This can be a lengthy process that may require some level of engineering expertise. This requirement will continue, thus ensuring that incentives are being paid for cost-effective verifiable efficiency gains. Those technologies that seem to be a good fit for the Non-Residential Smart Saver Prescriptive Program will be recommended for addition to the prescriptive application. The more measures offered through the Non-Residential Smart Saver Prescriptive Program, the fewer burdens there are on the customer that prevents participation in the Smart Saver program.

## Non-Residential Smart Saver® Custom

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While the level of interest in custom incentives has increased, the custom incentive team has worked diligently to reduce average application review times. Customers receive an estimate of the total review time with the application receipt acknowledgment. Expedite requests are accommodated whenever feasible without adversely affecting other application reviews.

In 2013, the Program added new resources to help facilitate the incentive application process for customers applying for complex projects that are expected to result in substantial energy savings. Approximately two employees are dedicated to the Smart Saver program in the role of energy efficiency engineer. These team members work with customers that have already identified an opportunity for energy efficiency and have an idea of the potential energy efficiency benefits; they do not perform facility assessments or audits. The engineer meets with the account manager (if applicable), customer and vendor to understand the scope of the potential energy efficiency project. Throughout the entire process of applying for an incentive, the engineer's objective is to help get to the point of project implementation and incentive payment. This includes helping to make the process go smoothly for the customer by anticipating what will be needed for a successful incentive application.

### **Potential Changes**

The Custom program hopes to test several applications, analytical and operational revisions in 2014. These concepts are in infancy at this time, but are expected to enable easier participation of small, yet complex projects as well as reduce program costs associated with processing applications for such projects.

### **E. Marketing Strategy**

The marketing strategy for the Program is the same as the Non-Residential Smart Saver Prescriptive Program. The strategy is to promote prescriptive incentives, which show pre-approved incentive amounts that get customers interested in a project and are designed for a high volume of applications. Then, if a customer's project does not fall under prescriptive incentives, the custom application is there to offer an alternative.

### **F. Evaluation Measurement and Verification**

The impact and process evaluation results for Non-Residential Smart Saver Custom program years 2010-2012 were presented during the fourth quarter Duke Energy Carolinas Collaborative meeting held in December 2013. The process and impact evaluation report, dated November 20, 2013, is filed in Docket No. E-7, Sub 1030 as Ham Exhibit K.

# Smart Energy Now

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Mar 05 2014

## A. Description

Duke Energy Carolinas, LLC (the “Company”) received regulatory approval from the North Carolina Utilities Commission on February 14, 2011 for the Smart Energy Now® (“Pilot”) pilot program. The Pilot is designed to create energy and capacity reductions through behavioral modifications by leveraging the community’s commitment to create an environmentally sustainable urban core. The Pilot program targets both occupants and managers of commercial buildings by providing them with more detailed information on the building’s energy usage, and providing the community’s aggregate energy usage data coupled with a customized employee and tenant engagement plan to reduce wasted energy.

## Audience

This Pilot program targets customers occupying commercial office buildings in community settings. The target audience is approximately 65 commercial office buildings (buildings with a minimum of 10,000 square feet) within Charlotte city center. Building owners, facility managers, and building occupants are part of the pilot, each playing an important role in achieving energy savings within the commercial office setting.

## B & C. Impacts, Participants and Expenses

Smart Energy Now <sup>12</sup>			
<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 YTD Dec 31, 2013	% of Target
North Carolina Nominal Avoided Cost		\$0.0	
Program Cost		\$1.3	
MW		0.0	
MWH		0.0	
Units <sup>3</sup>		0	

**Notes on Table:**  
 1) Numbers rounded.  
 2) There is no as-filed comparison for Smart Energy Now because it was a new pilot in 2012 and was not included in the original filing.  
 3) Units represent the number of customer accounts enrolled.

## D. Qualitative Analysis

### Highlights

In 2013, the primary focus of the program was to work with tenant companies to launch energy saving campaigns and increase awareness among employees. This included training occupants and property managers from each of the buildings, building relationships with tenant companies and utilizing relationships with facilities personnel in each building. This strategy created high level awareness activities in the community as well as targeted activities for each of the different buildings.

### Kiosk/Content Design:

No major changes to kiosk content since last update.

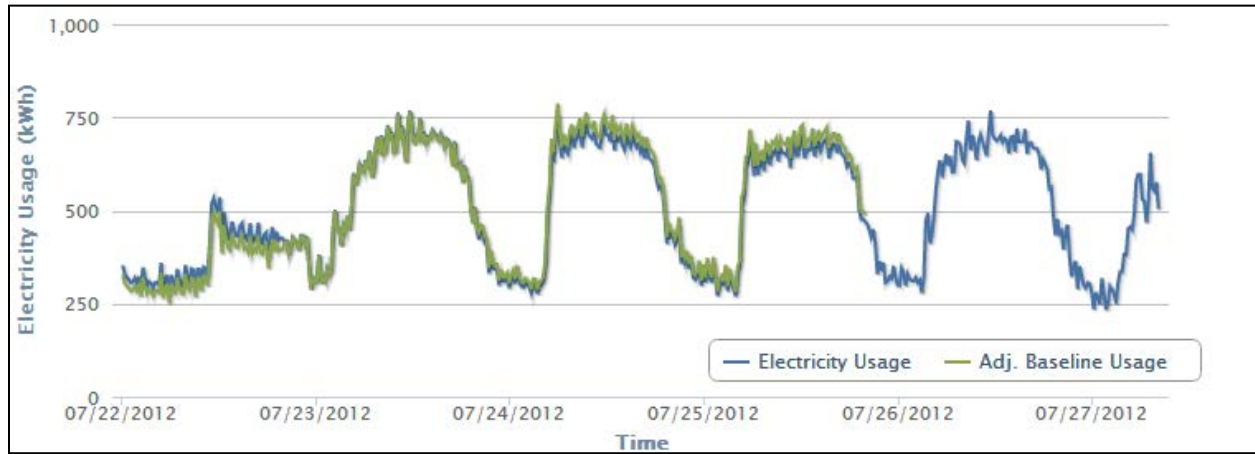
### Normalization of data:

The program team continues to work with participating buildings to keep building use and occupancy information up to date so that normalization is current.



## Smart Energy Now

Below is a screen shot from the Compass tool of an example of a usage graph (blue line) with the accompanying adjusted normalized 2010 baseline (green line):



### Customer/Community Outreach:

Throughout 2013, the team introduced the Declaration of Change to tenants in participating buildings. The Declaration of Change is a document that tenant companies sign to commit to saving energy in their offices and introducing a culture of sustainability to their employees. Once a Declaration is executed, the Program team works with tenant leadership and designated energy champions to audit the office space for energy saving opportunities, develop energy saving campaigns and launch to the employees. Often, the launch is kicked off with Energy Champion training and closes with information on the campaign, tools available and next steps. The training includes an overview of the Pilot, information about actions that can be taken in the office space to increase energy efficiency and sends information on the company-specific campaign being launched. By year-end 2013, over 1200 individuals in a variety of businesses participating in the Pilot have attended the training. The new initiative has been very successful and resulted in over 50 signed declarations were in hand by year-end 2013. In addition to the Energy Champion training, the program continues to engage occupants, present program information, and energy saving information, as well as share details on what companies across Uptown Charlotte are accomplishing through energy saving campaigns.

On January 8, 2014, the North Carolina Utilities Commission approved the Company's request to extend the Pilot through August 31, 2014 or to the effective date of a fully commercialized of Smart Energy Now program, whichever occurs first.

### Issues:

There are no major issues to report.

### Potential Changes:

No significant changes to the pilot are planned at this time.

### E. Marketing Strategy

In 2013, marketing activities revolved around communications, engaging tenants through social media, including Twitter and LinkedIn, email and blogs. The communications were focused on promoting energy

## Smart Energy Now

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saving tips, campaign successes and other pertinent information on sustainability. The program used a communications calendar that laid out emails, blog posts, quarterly newsletters and tweets.

### **F. Evaluation, Measurement and Verification**

The process evaluation results for the Smart Energy Now Pilot were presented during the 2013 fourth quarter Duke Energy Carolinas Collaborative meeting held in December 2013. The process evaluation report, dated July 31, 2013, is filed in Docket No. E-7, Sub 1050 as Ham Exhibit I.

The impact evaluation results will be presented during the 2014 second quarter Duke Energy Carolinas Collaborative meeting. The impact evaluation analysis consists of a billing analysis of all participant buildings, excluding Duke Energy buildings, and an engineering analysis of sample buildings.

**A. Description**

PowerShare® (“Program”) is a demand response program offered to commercial and industrial customers. The Program is made up of Mandatory (“PS-M”), Generator (“PS-G”), Voluntary (“PS-V”) and CallOption options, and customers can choose from a variety of offers. Under PS-M, PS-G and CallOption, customers receive capacity credits for their willingness to shed load during times of peak system usage. These credits are received whether an event is called or not. Energy credits are also available for participation (shedding load) during curtailment events. The notice to curtail under these offers is often rather short (15-30 minutes). Failure to comply during an event will result in penalties.

**Audience**

The Program is offered to Duke Energy Carolinas, LLC’s (the “Company”) nonresidential customers who have not opted out and are able to meet the load shedding requirements.

**B & C. Impacts, Participants and Expenses**

North Carolina PowerShare <sup>1</sup>			
<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
North Carolina Nominal Avoided Cost	\$26.2	\$29.1	111%
Program Cost <sup>2</sup>	\$14.0	\$15.4	110%
MW <sup>3</sup>	340.6	378.0	111%
MWH	N/A	N/A	
Units		188	

**Notes on Tables:**  
 1) Numbers rounded.  
 2) As filed program costs do not include M&V. Actual costs may include M&V. Program costs include approximately \$0.3M in Non Residential Energy Assessments.  
 3) MW capability derived by taking average over specific PowerShare contract periods.

**D. Qualitative Analysis**

**Highlights**

PS-Mandatory and PS-Generator have been well received by customers in both North Carolina and South Carolina. Most of the legacy customers enrolled in Interruptible Power Service (“IS”) and Standby Generator (“SG”) programs in South Carolina and many in North Carolina transitioned to PS-M and PS-G, respectively.

**Issues**

In March 3, 2010, the U.S. Environmental Protection Agency (EPA) promulgated national emission standards for hazardous air pollutants (NESHAP) for existing stationary compression ignition reciprocating internal combustion engines (RICE). The EPA incorporated this new requirement into 40 CFR 63 Supart ZZZZ on May 3, 2010 with a compliance date of May 3, 2013. Included in these rules were limitations on the use of “emergency generators” in demand response programs—maximum of 15 hours per year. Following litigation and an additional comment period, the EPA released a revised rule on January 14, 2013, that expanded the number of hours that emergency generators can be used for demand response by including it in the annual maximum of 100 hours for maintenance and testing. However, the revised rule also stipulated that the demand response events be dispatched under NERC Level 2 (or EEA2) conditions to qualify as emergency DR. This does not align with the Company’s strategy of implementing DSM programs in an effort to avoid entering NERC Level 2 reliability status.

## Potential Changes

In an effort to avoid losing a significant amount of MW resources from our programs because of the compliance costs, the Company has decided to operate a single generator program in each jurisdiction in accordance with the RICE NESHAP rules. We have recently implemented the changes necessary to position PS-G as the emergency generator program for Duke Energy Carolinas.

The Company entered into an agreement with interested parties in 2011 to create a new measure offer for PowerShare® CallOption. This offer would allow for up to 200 hours of “economic curtailments” and pay the customer a \$50/kW per year capacity credit. The North Carolina Utilities Commission approved this measure on January 24, 2013. Due to changes in operations, the original interested parties are currently not considering participation, but Duke Energy Carolinas continues to offer CallOption to qualified customers.

## E. Marketing Strategy

To date, marketing efforts for the Program have focused on the relationship between the Company’s account executives and their assigned customers. As part of their normal contact with customers, the account executives introduce the Program, including any new options/offers, while explaining the value proposition to the customer. Account Executives share in-house analytical spreadsheets that show the specific incentives for each offer as applied to the customer’s specific load profile as well as collateral to explain the details of all the Program offers.

In consideration of the number of qualifying customers that do not meet the criteria for being assigned to account managers, the Company is exploring both internal and external marketing opportunities to enhance our outreach and increase program participation.

## F. Evaluation, Measurement and Verification

The impact evaluation results for PowerShare program year 2012 were presented during the 2013 second quarter Duke Energy Carolinas Collaborative held June 2013. The impact evaluation report, dated June 11, 2013, is filed in Docket No. E-7, Sub 1050 as Ham Exhibit H.

No process evaluation work was conducted for the 2012 event season since the program design is stable and consistent from prior evolutions. This is a cost saving and it protects the small number of program participants from unnecessary interviews.

The impact and process evaluation results for PowerShare program year 2013 will be presented during the 2014 second quarter Duke Energy Carolinas Collaborative meeting. The results from the 2014 season will be available in 2015.

# Residential Energy Assessments

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## A. Description

The Residential Energy Assessments program offered by Duke Energy Carolinas, LLC (the “Company”) includes two programs: 1) Personalized Energy Report® and 2) Home Energy House Call.

Effective January 1, 2014, the **Personalized Energy Report® (“PER”) Program** has been discontinued and replaced by the My Home Energy Report Program.

The **Home Energy House Call (“HEHC”) Program** is a free in-home assessment designed to help customers reduce energy usage and save money. An energy specialist completes a 60 to 90 minute walk through assessment of the home and analyzes energy usage to identify energy saving opportunities. The Building Performance Institute (“BPI”) certified energy specialist discusses behavioral and equipment modifications that can save energy and money with the customer. A customized report is provided to the customer that identifies actions the customer can take to increase their home efficiency. Example recommendations might include the following:

- Turning off vampire load equipment when not in use
- Turning off lights when not in the room
- Using CFLs in light fixtures
- Using a programmable thermostat to better manage heating and cooling usage
- Replacing older equipment
- Adding insulation and sealing the home

Customers receive an Energy Efficiency Starter Kit with a variety of measures that can be directly installed by the energy specialist. The kit includes measures like CFLs, low flow shower head, low flow faucet aerators, outlet/switch gaskets, weather stripping and energy saving tips booklet.

The Company partners with several key vendors in support of the HEHC program: Wisconsin Energy Conservation Corporation (“WECC”), Proto Type, CustomerLink and AM Conservation. WECC administers the assessment component of the program. Additional key vendors include ProtoType for mailing services, CustomerLink for customer care support and scheduling (call center and back office), and AM Conservation for fulfillment of the Energy Efficiency Starter Kits.

### Audience

HEHC targets the Company’s residential customers that own a single-family residence with at least four months of billing history and have central air, electric heat or an electric water heater.

## B & C. Impacts, Participants and Expenses

<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
<b>North Carolina Nominal Avoided Cost</b>	<b>\$25.3</b>	<b>\$5.8</b>	<b>23%</b>
<b>Program Cost<sup>3</sup></b>	<b>\$9.3</b>	<b>\$2.7</b>	<b>29%</b>
<b>MW<sup>4</sup></b>	<b>12.3</b>	<b>1.4</b>	<b>12%</b>
<b>MWH</b>	<b>82,372.2</b>	<b>7,688.6</b>	<b>9%</b>
<b>Units</b>		<b>7,678</b>	

**Notes on Table:**

- 1) Numbers rounded.
- 2) New impacts per M&V extended measure lives by 1 year for Personalized Home Energy report and Online Audit.
- 3) As filed program costs do not include M&V. Actual costs may include M&V.
- 4) As filed MW are annual maximum peak. We track coincident peak for impacts.

## D. Qualitative Analysis

## Residential Energy Assessments

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### Home Energy House Call Program

#### Highlights

HEHC developed and incorporated a new and refreshing campaign theme creating a revised brand around the program. In addition to informing the customer about HEHC, the intent of the campaign is to be light in tone, memorable, engaging and to the point. HEHC introduced elements of the new campaign via website banners on the Duke Energy website and online services, TV and radio advertising, as well as email. The initial kick-off yielded positive response rates and enrollments in spite of vacation and holidays. The company will continue to incorporate the new campaign as other channels are refreshed analyzing results of such efforts to ensure both program performance as well as customer experience are maximized.

Communication channels amongst vendors, partners and the team at Duke Energy have been optimized to enhance collaboration regarding marketing initiatives, future scheduling, availability, routing, targeting, backlog, etc. to drive efficient operations as well as a customer satisfaction. Additionally, the HEHC program continues to utilize additional energy specialists to handle any over flow of appointments and ensure all customers are served in timely fashion.

#### Potential Changes

Some program enhancements to increase program impact raise participation satisfaction levels and establish the Company as a preferred energy provider being considered includes:

- Evaluating including specialty CFL bulbs and other measures in the Energy Efficiency Start Kit
- Revamping marketing collateral and website landing page to reflect look and feel of new campaign
- Considering using HEHC as a platform to analyze customer data and market other energy saving programs based on specific customer usage and feedback

### E. Marketing Strategy

#### Home Energy House Call Program

Program participation continues to be primarily driven through targeted mailings and emails to pre-qualified residential customers. The program is additionally featured online through the Duke Energy website and online services. Most recently, the Company added channels such as TV and radio to market the program.

Home Energy House Call program information and an online assessment request form are available at [www.duke-energy.com](http://www.duke-energy.com).

### F. Evaluation Measurement and Verification

#### Personalized Energy Report Program

The impact and process evaluation results were presented during the second quarter Duke Energy Carolinas Collaborative meeting held in June 2013. The process and impact evaluation report, dated March 29, 2013, is filed in Docket No. E-7, Sub 1050 as Ham Exhibit E. No future evaluations are planned because this program has ended.

#### Home Energy House Call Program

## Residential Energy Assessments

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The impact and process evaluation results were presented during the Duke Energy Carolinas Collaborative meeting held in June 2013. The process and impact evaluation report, dated February 19, 2013, is filed in Docket No. E-7, Sub 1050 as Ham Exhibit B.

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## Residential Smart Saver®

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### A. Description

The Residential Smart Saver® Program (“Program”) offers a variety of measures that allow eligible Duke Energy Carolinas, LLC (the “Company”) customers to take action and reduce energy consumption. The Program includes offers for lighting measures and HVAC measures.

#### Compact Florescent Lamps Measure

The Compact Fluorescent Lamps (CFLs) measure is designed to increase the energy efficiency of residential customers by offering customers CFLs to install in high-use fixtures within their homes.

The CFLs are offered through multiple channels to eligible customers. The on-demand ordering platform enables eligible customers to request CFLs and have them shipped directly to their homes. Eligibility is based on past campaign participation (i.e., coupons, Business Reply Cards (BRCs) and other Company programs offering CFLs). Bulbs are available in 3-, 6-, 8-, 12- and 15-pack kits that have a mixture of 13 watt and 20 watt bulbs. The maximum number of bulbs available for each household is 15, but customers may choose to order less.

Customers have the flexibility to order and track their shipment through three separate channels:

- 1) Telephone: Customers may call a toll-free number to access the Interactive Voice Response (IVR) system, which provides prompts to facilitate the ordering process. Both English and Spanish-speaking customers may easily validate their account, determine their eligibility and order their CFLs over the phone.
- 2) The Company Web Site: Customers can go online to order CFLs. Eligibility requirements and frequently asked questions are also available.
- 3) Online Services (OLS): Customers enrolled in the Company’s Online Services may order CFLs through the Company’s web site, if they are eligible.

The benefits of providing these three distinct channels include:

- Improved customer experience
- Advanced inventory management
- Simplified program coordination
- Enhanced reporting
- Increased program participation
- Reduced program costs

#### Specialty Lighting

The Duke Energy Savings Store (“Store”) is an extension of the on-demand ordering platform enabling eligible customers to purchase specialty bulbs and have them shipped directly to their homes. The Store launched on April 26<sup>th</sup>, 2013 and offers a variety of Compact Fluorescent Lamps (CFLs) and Light Emitting Diodes lamps (LEDs) including; Reflectors, Globes, Candelabra, 3 Way, Dimmable and A-Line type bulbs. The incentive levels vary by bulb type and the customer pays the difference, including shipping. The maximum number of bulbs eligible for the Company offered incentive for each household varies by category, but customers may choose to order additional bulbs but will not receive the Company offered incentive.

Customers can check eligibility and shop for specialty bulbs through two separate channels:



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- 1) The Company Web Site: Customers can go online to visit the Store and purchase specialty bulbs. Frequently asked questions and a savings calculator are available to help customers understand how much they can save and how sustainable they can be by purchasing and using CFL and LED lighting.
- 2) Online Services (OLS): Customer enrolled in the Company's Online Services may visit the Store and purchase specialty bulbs. Upon login, eligible customers are intercepted with the Store offer. Customer can select "Shop Now" or "No Thanks". Additional links within OLS are also available for customers to access the Store.

The Store is managed by a third party vendor, Energy Federation Inc. ("EFI"). EFI is responsible for maintaining the Store website and fulfilling all customer purchases. The Store landing page provides information about the store, lighting products, account information and order history. Support features include a toll free number, package tracking and frequently asked questions.

An educational tool is available to help customers with their purchase decisions. The interactive tool provides information on bulb types, application types, savings calculator, lighting benefits, understanding watts versus lumens (includes a video) and recycling/safety tips. Each wireframe within the educational tool provides insight on the types of bulbs customers can purchase and/or provides answers to questions they have about the products or savings.

Product pages for each bulb category include application photos, product images, product specifications, purchase limits and program pricing. Customers may place items in their shopping carts to purchase at a later time. Customers can pay for their purchase with a credit card or by check.

### Benefits of the Savings Store

- Improved customer experience
- Advanced inventory management
- Simplified program coordination
- Enhanced reporting
- Increased program participation
- Reduced program costs
- Quick and convenient
- Discounted pricing

### Property Manager Channel

The Property Manager Channel ("PMC") allows the Company to target multi-family apartment complexes to direct install CFLs. Honeywell, the third-party vendor, manages distribution of CFLs via the PMC and partners with property managers in both North Carolina and South Carolina to enroll multi-family properties.

The PMC allows property managers to upgrade lighting with CFLs, reducing maintenance costs while improving tenant satisfaction by lowering energy bills. Each apartment may qualify for up to 12 CFLs per unit depending on the size.

Once enrolled, the property manager identifies the number of permanent lighting fixtures available. The Company provides the CFLs but the property manager pays for all shipping costs. The CFLs are installed in permanent fixtures during routine maintenance visits. The property manager reports the

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number of bulbs installed to the Company. Honeywell validates this information and provides a report for each individual unit on the property.

### Residential HVAC Measures

In both North Carolina and South Carolina, the installation of a high-efficiency heat pump or air conditioner will result in a \$300 incentive. For replacement of an existing system, the Company's customer receives \$200, and the HVAC contractor receives a \$100 incentive. For new home construction, the home builder receives the \$300 incentive but has the option to provide the incentive to the homeowner.

For the additional tune and seal measures, eligible customers will receive incentives for the installation of measures such as sealing leaks and upgrading insulation in the attic (initial amount of \$250), upgrading duct insulation (initial amount of \$75), sealing duct systems (initial amount of \$100) and tuning up a heat pump or air conditioner (\$50). All incentives will be paid directly to the Company's customers.

GoodCents administers the HVAC segment of the Program and establishes relationships with home builders and HVAC and home performance contractors ("trade allies") who interface directly with residential customers. These trade allies adhere to Program requirements and submit the incentive application. Once the application is processed, GoodCents disburses the incentive check to the customer.

In addition, GoodCents is responsible for processing calls from trade allies and customers about the HVAC segment of the Program.

### Audience

The Company's residential customers that meet the eligibility requirements of the Program.

### B & C. Impacts, Participants and Expenses

Residential Smart Saver <sup>1</sup>			
<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
North Carolina Nominal Avoided Cost	\$34.7	\$37.2	107%
Program Cost <sup>2</sup>	\$11.1	\$14.4	130%
MW <sup>3</sup>	12.5	13.4	107%
MWH	84,259	123,622	147%
Units		3,590,128	

**Notes on Table:**  
 1) Numbers rounded.  
 2) As filed program costs do not include M&V. Actual costs may include M&V.  
 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

### D. Qualitative Analysis

#### CFL

#### Highlights

Many customers have participated in the CFL Program by ordering bulbs through the IVR, OLS and the Company's website. Customers find this process simple and enjoy the convenience of having bulbs shipped directly to their homes. Over 238,900 orders were placed in 2013. Participation is tracked at the

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account level which allows the Company to focus its attention and resources on non-program participants. Over 32% of the orders were placed through the toll-free phone number, while 40% of the orders were placed through OLS and 28% through the Company's website. These measures are included in the Energy Efficient Appliances and Devices program effective January 1, 2014.

### **Issues**

Analyzing customer data and finding ways to effectively market to non-participating customers.

### **Potential Changes**

Innovative marketing campaigns will be utilized to improve awareness for hard-to-reach and late-adopter customers and cross promote the Duke Energy Saving Store.

### **Specialty Lighting**

#### **Highlights**

Customers are responding well to the discounted specialty lamps offered via the Store. The Store is available to customers 24/7 and customers can purchase CFLs and LEDs at their leisure. Over 8,700 orders were placed since the launch of the Store resulting in over 117,000 bulbs. Over 73% of customer accessed the Store via the public website, while 27% accessed the store by logging into their on-line services account. These measures are included in the Energy Efficient Appliances and Devices program effective January 1, 2014.

### **Issues**

Educating and bringing awareness of the Store to eligible customers. Allowing customers without internet access or computers to order via mail-in order form or by calling the vendor and ordering by phone.

### **Potential Changes**

Minimize or removing shipping cost from customer orders and continue to build the product portfolio for more lighting options and technologies. Implement a mail-in order form and/or provide a toll free number to call and order bulbs directly from the vendor, EFI.

### **Property Manager Channel**

#### **Highlights**

The Property Manager Channel has been well received in both North Carolina and South Carolina. Marketing efforts including direct mail postcards, email campaigns, outbound calls and face-to-face meetings which resulted in an increased participation in the program in 2013. Over 213 properties in North Carolina and 69 properties in South Carolina have successfully installed energy efficient CFLs totaling over 200,900 bulbs.

Beginning in March 2014, the Property Manager program will work with a new vendor and offer a direct install or "do-it-yourself" installation program for the property maintenance crews. The program will add energy efficient water measures including; kitchen/bath aerators, low-flow showerheads and pipe wrap. The new vendor is responsible for soliciting and signing up properties for the program, marketing and

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tracking/reporting program results. These measures are included in the Multi-Family Energy Efficiency program effective January 1, 2014.

### Issues

During the summer months, many properties do not have the resources available to prioritize CFL installation. Higher unit turnover and air conditioner maintenance and repairs require the maintenance crew's attention. To address this issue, the Company allows property managers 90 days to complete installation.

### Residential HVAC

#### Highlights

The Company partnered with select participating trade allies across both North Carolina and South Carolina during the third quarter of 2013 to offer discounted heat pump and central air conditioner tune ups to eligible customers. Though the offer was made outside of the products true seasonality trade ally buy-in and customer response was positive. The initiative resulted in over 100 participants. These measures are included in the HVAC Energy Efficiency program effective January 1, 2014.

#### Issues

The buy-in and participation of the trade ally network is vital to the success of the HVAC segment of the Program. The Company and GoodCents continue to inform the trade ally network of the new measures; however, the Program aims to shift market practices away from some of the more commonly utilized practices which rely heavily on decentralized training and varying knowledge levels, as well as imprecise and manual field calculations, towards industry trained and certified trade allies using higher quality instruments and processes which has proven challenging and has slowed the recruitment process. While some trade allies have registered and are capable of offering the new measures, the Company expects the quantity of trade allies to increase during the coming year due to recently available equipment and increased customer demand.

### E. Marketing Strategy

#### CFL

The overall strategy of the Program is to reach residential customers who have not adopted CFL bulbs. The Company will continue to educate customers on the benefits of CFLs while addressing barriers for customers who have not participated in the Program. Additionally, the ease of Program participation will also be highlighted to encourage use of the on-demand ordering platform.

Direct mail marketing has generated a significant number of orders in both North Carolina and South Carolina. The individual response rates to the different campaigns have averaged around 12%. Samples of the marketing collateral used for these campaigns are available in the Appendix.

#### Specialty Lighting

Since the launch of the Store, the marketing efforts include bill messages, bill inserts, email campaigns and direct mail. Examples of the marketing pieces can be found in the Appendix. Awareness and education will be the main focus in collateral messages to eligible customers.

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### **Property Manager Channel**

Honeywell markets to property managers, located in the Duke Energy Carolinas service territory, through various channels including tradeshows, email and Apartment Association events. Additionally, the Company maintains information on the My Duke website. Multi-family properties in the Company's service territory receive a promotional offer when they log in to their My Duke profile.

### **Residential HVAC**

Promotion of the HVAC segment of the Program is primarily targeted to HVAC and home performance contractors as well as new home builders. Trade allies are important to the Program's success because they interface with the customer during the decision-making event, which does not occur often for most customers.

GoodCents is responsible for promotion of the Program directly to potential trade allies including HVAC and home performance contractors and new home builders. Program information and trade ally enrollment forms are available on the Program's website to encourage participation. By increasing the participation of trade allies, it ensures more customers are aware of the Program at time of purchase.

The Company implemented several customer marketing campaigns during the third and fourth quarters of 2013 leveraging channels such as cinema, radio and print to build awareness of the program. Other channels such as web and ad words have also been used to create awareness of the program.

### **F. Evaluation, Measurement and Verification**

#### **CFL (CFL via IVR, Web and OLS, Specialty Lighting & Property Manager Channel)**

Results from the Property Manager Channel of the Residential Smart Saver CFL program were presented during the Duke Energy Carolinas Collaborative meeting held in June 2013. The process and impact evaluation report, dated February 18, 2013, is filed in Docket No. E-7, Sub 1050 as Ham Exhibit A.

The next Residential Smart Saver CFL program process and impact evaluations, which will include the specialty bulbs, will be conducted in 2014. The process evaluation will include Program management and vendor interviews plus participant and non-participant surveys. The impact analysis methodology will consist of engineering analysis.

#### **HVAC**

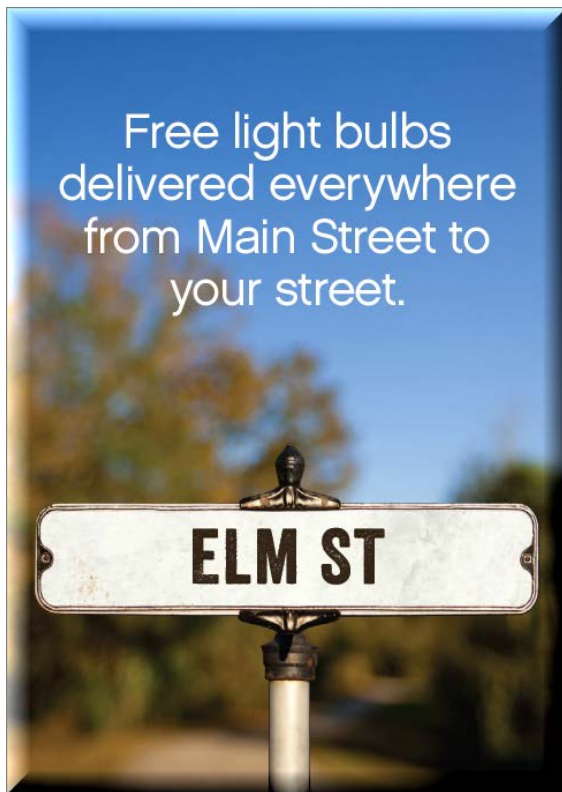
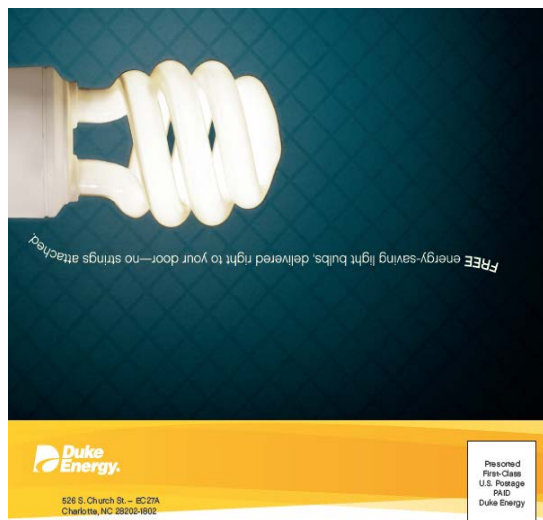
The impact results from the Residential Smart Saver HVAC program were presented to during the Duke Energy Carolinas Collaborative meeting held in June 2013. The impact evaluation report, dated February 28, 2013, is filed in Docket No. E-7, Sub 1050 as Ham Exhibit C.

TecMarket Works, the program evaluator, is monitoring program participation and will begin the process and impact evaluations once the program has achieved a measurable level of participants.

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## G. Appendix

### CFL – Direct Mail Campaign



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## Savings Store – Specialty Bulbs



520.11.3163 (Toll-free)  
1-877-268-1348 (Outside NC 2013)



**Time, Money, Energy.** Who wants to waste things like that? Now Duke Energy offers a way to help you save all three!

**Bright ideas to save energy and money.** You already know that Compact Fluorescent Light (CFL) bulbs can last up to 10 times longer than "old school" incandescent bulbs... and consume less than one quarter of the electricity. But did you know that Duke Energy offers more than 15 varieties of CFL and Light Emitting Diode (LED) bulbs **at discounts of up to 92% off?**



**Save time.** Oh, forget about driving to a store and waiting in line to pay. Shopping online from a trusted source, with home delivery, is quick and convenient.

**Just visit [www.Duke-Energy.com/GreatDeals](http://www.Duke-Energy.com/GreatDeals),** log in to visit the store, get some application advice using the "shopping assistant", then make your selection and check out. Your bulbs will be delivered to your door. We call this the **Duke Energy Savings Store** – you'll call it a good use of your time, money and energy.



**Don't make us ask what you're waiting for** see what's waiting for you! For easy online access, here is your account number:

or use your faster phone number to log on

Check out the enclosed flyer and the online store for yourself

*L. Granger*  
Lan Granger  
Product Manager

The latest bulbs at the greatest prices.

**FEATURED DEAL:**  
11-watt, long-life Philips® LED Capsule, now only \$8.95  
Energy cost: \$2.88 per bulb

Plus discount shipping.

**\$5 flat-rate shipping** on all orders through Dec. 31

**Go to [duke-energy.com/BigSavings](http://duke-energy.com/BigSavings)**

Duke Energy Storage Shed is available at night. Size (Energy standard) available in 10, 20, 30, and 40. Pressure, wind, weather, and other conditions may affect storage capacity. Storage capacity may vary. ©2013 Duke Energy. All rights reserved. [www.duke-energy.com](http://www.duke-energy.com)

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**DUKE ENERGY**

Save big on bulbs. And save yourself from the UltraMegaMart hassle.

You don't have to hit the big-box stores to save big. A few recent deals – all now available with \$5 flat-rate shipping:

<p><b>REFLECTOR</b></p> <p>Directional beam of light About as bright as 50w incandescent But uses only 14 watts And lasts 8,000 hours Energy cost: \$1.00 But you pay: \$8.45 per bulb</p>	<p><b>CANDELABRA</b></p> <p>For smaller fixtures About as bright as 25-40w incandescent But uses only 5 watts And lasts 8,000 hours Energy cost: \$0.50 But you pay: \$1.24 per bulb</p>	<p><b>3-WAY SPIRAL</b></p> <p>As bright as you want About as bright as 30w incandescent But uses only 23 watts And lasts 8,000 hours Energy cost: \$1.25 But you pay: \$3.70 per bulb</p>	<p><b>LED CAPSULE</b></p> <p>Even more efficient and longer lasting About as bright as 50w incandescent But uses only 11 watts And lasts 25,000 hours Energy cost: \$0.59 But you pay: \$10.00 per bulb— Now only \$8.95 per bulb</p>
<p><b>OUTDOOR REFLECTOR</b></p> <p>Stands up to the weather About as bright as 100w incandescent But uses only 23 watts And lasts 8,000 hours Energy cost: \$1.75 But you pay: \$1.45 per bulb</p>	<p><b>GLOBE</b></p> <p>Ready replacement About as bright as 50w incandescent But uses only 14 watts And lasts 8,000 hours Energy cost: \$1.50 But you pay: \$1.99 per bulb</p>	<p><b>CAPSULE</b></p> <p>Affordable bestseller About as bright as 50w incandescent But uses only 14 watts And lasts 8,000 hours Energy cost: \$1.00 But you pay: \$1.44 per bulb</p>	<p><b>LED REFLECTOR</b></p> <p>LED efficiency for directional use About as bright as 50w incandescent But uses only 15 watts And lasts 25,000 hours Energy cost: \$1.99 But you pay: \$10.95 per bulb</p>

▶ Go to [duke-energy.com/BigSavings](http://duke-energy.com/BigSavings) to see all the choices.  
Have your electric bill account number handy when you go to shop online.

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Shop for energy- and money-saving bulbs:  
Visit: [www.duke-energy.com/ShopBulbs](http://www.duke-energy.com/ShopBulbs)

Use your account number to shop online:

Save this refrigerator magnet as a reminder to return again to shop for a growing selection of energy-saving products at deeply discounted prices.

**Base sizes**  
Candelabra Base E-12  
Medium Base E-26 or E-27

**Save energy. Save money. Save a trip to the store.**  
Order deeply discounted energy-efficient bulbs at [www.duke-energy.com/save](http://www.duke-energy.com/save)

© 2013 Duke Energy. All rights reserved. Duke Energy is a trademark of Duke Energy Corporation.

**Duke Energy Online Savings Store offers:**



- Wide variety of most common bulbs to replace conventional incandescent bulbs
- Bulbs at discount prices up to 92% off everyday retail price
- Easy online ordering and convenient home delivery
- ENERGY STAR® qualified CFL and LED bulbs that use less electricity and can last up to 10 to 50 times longer than incandescent bulbs

Go to: [www.duke-energy.com/ShopBulbs](http://www.duke-energy.com/ShopBulbs)



**DUKE ENERGY.**  
6022A, 626 Church St.  
Charlotte, NC 28202

**\$5 flat rate shipping**  
on all orders placed now through October 15, 2013. Available at checkout.

**John Q. Sample**  
1284 Main Street  
Anytown, US 04821-9876


Printed Standard U.S. Postage PAID 04821-9876

**DUKE ENERGY.**

**Savings Store**

Get bulbs that use less energy, for less money, delivered to your door.

Now with \$5 flat rate shipping until October 15, 2013.



LED CAPSULE	LED REFLECTOR	CANDELABRA	CAPSULE	CULX
 <b>LED Capsule</b> 11 Watts Equal to 40 watts* Lumens: 800 Life: 25,000 hours Base: Medium Retail: \$25.00 You Pay: \$14.25	 <b>LED Reflector</b> 10 Watts Equal to 42 watts* Lumens: 800 Life: 25,000 hours Base: Medium Retail: \$25.00 You Pay: \$14.25	 <b>Candelabra</b> 7 Watts Equal to 42 watts* Lumens: 800 Life: 25,000 hours Base: Candelabra Retail: \$25.00 You Pay: \$14.25	 <b>Capsule</b> 9 Watts Equal to 42 watts* Lumens: 800 Life: 25,000 hours Base: Medium Retail: \$25.00 You Pay: \$14.25	 <b>Culx</b> 11 Watts Equal to 42 watts* Lumens: 800 Life: 25,000 hours Base: Medium Retail: \$25.00 You Pay: \$14.25

REFLECTOR	OUTDOOR REFLECTOR	DIMMING REFLECTOR	3 WAY SPHAL	DIMMABLE SPHAL
 <b>Reflector</b> 11 Watts Equal to 40 watts* Lumens: 800 Life: 25,000 hours Base: Medium Retail: \$25.00 You Pay: \$14.25	 <b>Outdoor Reflector</b> 14 Watts Equal to 60 watts* Lumens: 945 Life: 25,000 hours Base: Medium Retail: \$40.00 You Pay: \$24.25	 <b>Dimming Reflector</b> 14 Watts Equal to 60 watts* Lumens: 945 Life: 25,000 hours Base: Medium Retail: \$40.00 You Pay: \$24.25	 <b>3 Way Sphal</b> 15 Watts Equal to 60 watts* Lumens: 1000 Life: 25,000 hours Base: Medium Retail: \$15.00 You Pay: \$7.25	 <b>Dimmable Sphal</b> 15 Watts Equal to 60 watts* Lumens: 1000 Life: 25,000 hours Base: Medium Retail: \$15.00 You Pay: \$7.25

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**Save money.  
Save energy.**



**Shop Duke Energy Savings Store online.**  
Save up to 92% on energy-efficient compact fluorescent light (CFL) and light emitting diode (LED) light bulbs - delivered right to your door. They'll reduce your electric bills for years to come, cut carbon emissions, and last **10 to 50 times longer** than incandescent bulbs.

Our simple online tools can help you select bulbs and add up your electric savings. Use your phone number or Duke Energy account number to sign in and start saving today.

**Shop now**  
[duke-energy.com/residential-savings-store](http://duke-energy.com/residential-savings-store)

**Save 92% off retail.**  
This popular light bulb sells for 48 cents - 92% off a \$6.00 everyday retail price.



**Duke Energy Store on Twitter**  
Follow us for service notices, tips and installation updates.

**Duke Energy Store on Facebook**  
Get the latest stories, advice and safety information in your news feed.

**youutility™ on Facebook**  
Discover new ways to save energy and energy at home.

Update Your Subscriptions | Unsubscribe | Privacy Policy | [www.duke-energy.com](http://www.duke-energy.com) | Share this on    

Duke Energy | 550 South Tryon Street | Charlotte, NC 28202



**Save now on energy-efficient products. Keep saving with them for years to come.**

Get up to **84 percent** off retail prices on long-lasting, energy-saving light bulbs at the Duke Energy Savings Store. You can buy CFL and LED bulbs for a wide variety of fixtures around your home, without even leaving the house.

Using energy more wisely is important to all of us. Plus, it saves money. So why not start saving today? Check to see if you're eligible to participate.

Visit [duke-energy.com/savingsstore](http://duke-energy.com/savingsstore)



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## Residential Smart \$aver®

**Save now *on* energy-efficient lighting. Keep saving *with* them for years to come.**

As a Duke Energy customer, you can get free CFLs and a variety of deeply discounted energy-efficient bulbs. How's that for a bright idea?

Order yours at [duke-energy.com/store](http://duke-energy.com/store)



CFL Property Manager Channel – State Landing Page Promotion

**Property Managers:  
Stand out from your competition.**

Offer your residential tenants free energy saving bulbs.



[learn more](#)

1 2 3

# Residential Smart \$aver®

## CFL Property Manager Channel – Web Page

**DUKE ENERGY** Ohio [View Mobile](#) [Contact Us](#) [Investors](#)

RESIDENTIAL **BUSINESS** LARGE BUSINESS OUR COMPANY

Ohio Business » Save Energy & Money » Property Manager CFL Program

### Property Manager CFL Program

Property managers: Get free CFLs with free shipping. Plus, earn a free gift card.

In today's competitive rental market, you need ways to set your community a step above your competition. Duke Energy will help by providing you with energy-efficient compact fluorescent bulbs (CFLs). They are perfect for permanent light fixtures in foyers, bedrooms and family areas. Changing the bulbs is easy and can be done on your regular maintenance schedule.

**Benefits to you**

- Upgrade your lighting for less. Shipping is also free.
- Reduce maintenance costs and efforts. CFLs last 10 times longer than traditional bulbs.
- Improve tenants' satisfaction by helping them save energy and money. CFLs use 75 percent less energy.
- Attract and retain tenants by promoting your energy-efficient lighting.

Contact us: email or 888-237-4674.

**Limited time promotion**

Properties that complete these four steps earn free Visa debit cards from \$10 to \$50\*.

- Request an application by email or call 1-888-237-1871
- Submit completed application to Duke representative by 5/31/2013
- Qualified applicants must place an order from 100 to 1000+ bulbs by 8/30/2013\*
- Install 90 percent of bulbs within 90 calendar days

Install 50 percent of bulbs within 90 calendar days to get a chance drawing for additional gift card!

\*100-499 CFLs = \$10 gift card; 500-899 CFLs = \$25 gift card; 1,000+ CFLs = \$50 gift card.

**What our customers say**

The Duke Energy CFL program is one of the best improvements we have made for our residents! It only takes a minute to sign us for the program. Now all of our residents are on their way to saving both energy and money. We strongly recommend this program.

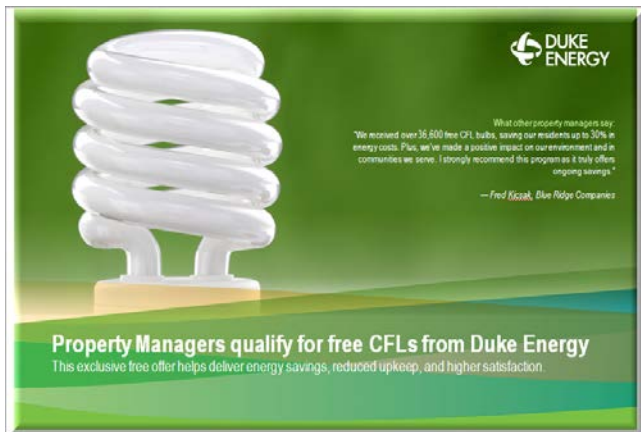
— Steacy M. Javoriski, CAM, OTA, Community Manager, Graystar

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# Residential Smart Saver®

## CFL Property Manager Channel – Direct Mail Promotions



**DUKE ENERGY**

What other property managers say:  
"We received over 36,600 free CFL bulbs, saving our residents up to 30% in energy costs. Plus, we've made a positive impact on our environment and the communities we serve. I strongly recommend this program as it truly offers ongoing savings!"  
— Fred Kiszak, Blue Ridge Companies

**Property Managers qualify for free CFLs from Duke Energy**  
This exclusive free offer helps deliver energy savings, reduced upkeep, and higher satisfaction.



**DUKE ENERGY**  
520 South Church Street  
Charlotte, NC 28202

**Property Managers enjoy free CFLs and ongoing savings with this exclusive offer.**

**Property Managers: Get free CFLs with free shipping. Plus, earn a free gift card.**

As a property manager, you can save big with this exclusive offer from Duke Energy. We'll send eligible properties up to **12 FREE compact fluorescent bulbs (CFLs)** per unit for each of your units— for free. You don't even have to pay for shipping!

**CFLs:**

- Save money
- Easy to order
- Easy to install
- Cut Maintenance
- Last up to 10x longer

**Get started today:**  
Online: [duke-energy.com/property-mgr](http://duke-energy.com/property-mgr)  
Phone: 1-888-297-1671



**DUKE ENERGY**

**Property managers: Get free CFLs with free shipping. Plus, earn a free gift card.**

**ASK HOW YOU CAN EARN A GIFT CARD!**

As a property manager, you can save big with this exclusive offer from Duke Energy. We'll send you up to 12 compact fluorescent light (CFL) bulbs for each of your units — for free. You don't even have to pay for shipping!

CFLs will help you and your residents save time and money. Because not only do CFLs last longer than incandescent bulbs, they can help your community save energy today — and for years to come.

**Your property will stand out as an energy efficient community, all while racking up big savings.**

**How will your property benefit?**

- Savings — CFLs use significantly less energy than traditional bulbs, last up to 10 times longer (reducing maintenance needs) and come with a two-year warranty.
- Marketing power — The bulbs belong to you, not your tenants, allowing you to use energy efficient lighting as a new community benefit.
- Add value — Nearly nine out of 10 Americans prefer eco-friendly living and more than half are willing to pay more for it.\*

**Take advantage of this exclusive offer now to get up to 12 free CFLs per unit with free shipping. That's as free as free can be!**

**Get started today:**  
Online: [duke-energy.com/property-mgr](http://duke-energy.com/property-mgr)  
Phone: 888-297-1671

**"We received more than 36,600 free CFLs, saving our residents up to 30 percent in energy costs. Plus, we've made a positive impact on our environment and in the communities we serve. I strongly recommend this program as it truly offers ongoing savings."**

Fred Kiszak  
Blue Ridge Companies  
High Point, NC

\*Source: 2010 Smart.com national survey



**DUKE ENERGY**

**Gain an operating and marketing advantage with free energy-saving CFL bulbs and free shipping from Duke Energy**

... plus earn free VISA gift cards for limited time!

Today's rental market, you need ways to set your rental community apart. Energy efficiency helps sell. Sign-up to qualify for up to 12 compact fluorescent light bulbs (CFLs) from Duke Energy.

Install them in kitchens, living rooms, bathrooms, and ceiling fixtures. Changing bulbs is easy and can be accomplished during regular maintenance schedules.

**Click here to learn more and sign up**

**CFLs:**

- Save money
- Easy to order
- Easy to install
- Cut maintenance
- Last up to 10x longer

Click the sign-up button or call 888-297-1671 to learn more or to order.

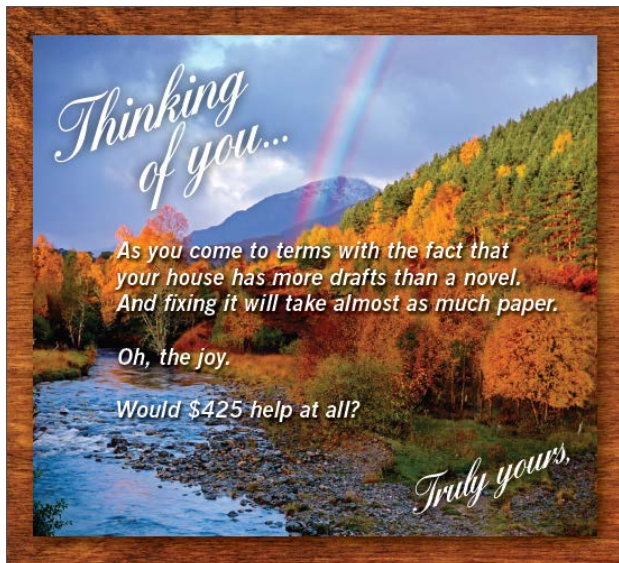
**Earn a free gift card for a limited time. Learn more or sign-up now. This gift card offer ends 6/31/2013. Click the button below for details.**

**Click here to learn more and sign up**

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# Residential Smart \$aver®

## Residential HVAC – Print, Radio and Cinema Awareness Campaign



Get hundreds of dollars in rebates from Duke Energy for choosing to make your home run more efficiently.  
To learn more, visit [duke-energy.com/TrulyYours](http://duke-energy.com/TrulyYours) or call 866-785-6209



Get hundreds of dollars in rebates from Duke Energy for choosing to make your home run more efficiently.  
To learn more, visit [duke-energy.com/ThinkingOfYou](http://duke-energy.com/ThinkingOfYou) or call 866-785-6209



## Residential HVAC – Online Services Promotions

**Here's a cool idea:**

Our state-of-the-art diagnostic **AC Health Check** can help

Plus we'll give you \$50 towards the cost to improve

**Get \$50**






**Is your AC running efficiently?**

Get an AC Health Check and lower your energy bills this summer.

Plus get a \$50 rebate for qualified improvements

**Get \$50**

# Residential Smart \$aver®

## Residential HVAC Product Landing Page

**Video: How to get your \$50**



Play Video ▶

**Video: Get up to \$425 cash to improve your air quality.**



Play Video ▶

# Residential Smart \$aver®

## Residential HVAC – Email Message



Optimize your AC. Lower your bills.

**Get \$50 to help.**

- Is your AC more than four years old?
- Do you think it runs too much, costing you extra money?
- Are you still warm even when your AC is running?

If you answered yes to any of these, an AC and heat pump Health Check could significantly reduce your energy bills. Our state-of-the-art diagnostic tool identifies efficiency issues that could be missed by an average tuneup. Search our list of certified local contractors, and schedule your Smart \$aver® Health Check today.

\*Contractor pricing varies.



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Duke Energy | 550 South Tryon Street | Charlotte, NC 28202

## Residential HVAC – Bill Insert

IS YOUR  
**INSULATION**  
DOING ITS JOB?

**Insulate. Seal. Save.**  
Up to \$425 available to help.

Update your attic and duct insulation and seal air leaks today. It can help even out the temperatures in your home, reduce allergens and pollutants – and save money on your energy bills.

Plus, we have up to \$425 to help you make improvements. Visit [duke-energy.com/smarty](http://duke-energy.com/smarty) to learn more.

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# Low Income Energy Efficiency and Weatherization Assistance Program

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## A. Description

The purpose of the Low Income Energy Efficiency and Weatherization Assistance Program (“Program”) is to assist low income customers with energy efficiency measures in their home to reduce energy usage. There are two offerings currently in the Program: weatherization and equipment replacement.

Weatherization and Equipment Replacement Assistance is available for up to 5,000 qualified customers in the Duke Energy Carolinas, LLC’s (the “Company”) service territory in existing, individually metered, owner-occupied single-family, all-electric residences, condominiums, and mobile homes.

- Funds are available for (i.) weatherization measures, and/or (ii.) refrigerator replacement with an Energy Star appliance, and/or (iii.) heating system replacement with a 14 or greater SEER heat pump. The measures eligible for funding will be determined by an energy audit of the residence.
- A home energy audit will be provided at no charge to the customer.
- Participants are not eligible for payments under any other of the Company’s energy efficiency programs for the same energy efficiency measure provided under this Program.

The weatherization and equipment replacement programs were not implemented in 2013. The Company planned to work with the state weatherization program administrators from North Carolina and South Carolina to provide a utility offered weatherization program to eligibility customers. However, due to the distribution of American Recovery and Reinvestment Act (ARRA) funds in 2009, both North Carolina and South Carolina state weatherization program administrators requested the Company delay the utility-offered weatherization and equipment programs. The Company is currently working with contacts from the state administrator’s office for North Carolina and South Carolina to implement a utility-offered program.

## Audience

Availability of this Program will be coordinated through local agencies that administer state weatherization programs, and the agency must certify that the household income of the participant is between 150% and 200% of the federal poverty level.

## B & C. Impacts, Participants and Expenses

<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
<b>North Carolina Nominal Avoided Cost</b>	<b>\$26.3</b>	<b>\$0.0</b>	<b>0%</b>
<b>Program Cost<sup>2</sup></b>	<b>\$18.1</b>	<b>\$0.0</b>	<b>0%</b>
<b>MW<sup>3</sup></b>	<b>10.5</b>	<b>0.0</b>	<b>0%</b>
<b>MWH</b>	<b>76,669</b>	<b>0</b>	<b>0</b>
<b>Units</b>		<b>0</b>	

**Notes on Table:**  
 1) Numbers rounded.  
 2) As filed program costs do not include M&V. Actual costs may include M&V.  
 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

## D. Qualitative Analysis

### Highlights

The residential Smart Saver<sup>®</sup> program offers CFLs to eligible residential customers in North Carolina and South Carolina through the automated Interactive Voice Response or Web platform. The number of



## Low Income Energy Efficiency and Weatherization Assistance Program

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income qualified program participants requesting free CFLs from the residential Smart \$aver<sup>®</sup> CFL program far exceeds the participation rate achieved in the Agency Assistance Kit program.

The Company continues to partner with local agencies by providing CFL postcards that include information on the free CFL offer and instructions on how to place orders. An example of this postcard is included in the Appendix.

Effective January 1, 2014, the Company will offer the low-income weatherization, equipment replacement and neighborhood measures via the Income-Qualified Energy Efficiency and Weatherization Assistance Program.

### **Issues**

No issues to report at this time.

### **Potential Changes**

The Company is currently in contract negotiations with the state weatherization programs for both North Carolina and South Carolina. The goal launch date is set for second quarter 2014.

### **E. Marketing Strategy**

Low income agencies receive a supply of postcards to distribute to clients who are customers of the Company. The postcards provide instructions for customers to request CFLs by phone or web and have CFLs delivered directly to their home.

The Company plans to piggy-back the marketing efforts of the current state Weatherization Assistance Programs.

### **F. Evaluation, Measurement and Verification**

There are no evaluations scheduled for 2014.

# Low Income Energy Efficiency and Weatherization Assistance Program

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## G. Appendix

### CFL Agency Card (Front)

The front of the CFL Agency Card features the Duke Energy logo in the top right corner. The background is white with large, overlapping curved shapes in shades of green, blue, and yellow. The main headline reads "Duke Energy Customers Can Receive FREE Energy Efficient Bulbs". Below this, a sub-headline states "We'll Ship Them Direct To Your Home – No Obligation!". A small inset photo shows a man in a white shirt holding a CFL bulb. To the right of the photo, text explains that Duke Energy will send free bulbs to try for yourself with no obligation or risk. A bulleted list describes the benefits of these new bulbs: they last up to 10 times longer than a standard bulb, provide the same amount of light as a standard bulb but use about 75 percent less energy, and can help save about \$30 over the lifetime of each bulb. At the bottom, it instructs customers to call 1-800-943-7585 and press Option 1, or visit [www.duke-energy.com/freecfls2](http://www.duke-energy.com/freecfls2) to see if they are eligible for free bulbs.

**Duke Energy.**

## Duke Energy Customers Can Receive FREE Energy Efficient Bulbs

**We'll Ship Them Direct To Your Home – No Obligation!**

At Duke Energy, we want everyone to learn how new, energy-saving bulbs can save a lot in the long run. So, we'll send FREE bulbs to try for yourself with absolutely no obligation or risk.

**These new bulbs:**

- Last up to 10 times longer than a standard bulb. That means you'll replace bulbs far less often.
- Provide the same amount of light as a standard bulb but use about 75 percent less energy.
- Can help you save on your electric bill – about \$30 over the lifetime of each bulb.

TO SEE IF YOU'RE ELIGIBLE FOR FREE BULBS, **CALL 1-800-943-7585 and press Option 1.** Or visit [www.duke-energy.com/freecfls2](http://www.duke-energy.com/freecfls2). WE LOOK FORWARD TO SENDING YOU YOUR FREE BULBS!

### CFL Agency Card (Back)

The back of the CFL Agency Card features the Duke Energy logo in the top left corner. The background is white with large, overlapping curved shapes in shades of yellow, green, and blue. The main headline reads "Energy-Saving Bulbs Are A Bright Idea". Below this, text explains that today's energy-saving bulbs have come a long way from earlier models and provide high-quality, warm white light and no buzzing. A sub-headline states "Don't wait for existing bulbs to burn out. Get your free bulbs and start saving now." Below this, a numbered list explains how to get the free bulbs: 1. Call 1-800-943-7585 and press Option 1 or visit [www.duke-energy.com/freecfls](http://www.duke-energy.com/freecfls). 2. Install your energy-saving bulbs in the most frequently used areas of your home. 3. Enjoy the savings on your electric bill! At the bottom, it instructs customers to see if they are eligible now and order their bulbs in less than five minutes.

**Duke Energy.**

## Energy-Saving Bulbs Are A Bright Idea

Today's energy-saving bulbs have come a long way from earlier models and provide high-quality, warm white light and no buzzing.

**Don't wait for existing bulbs to burn out. Get your free bulbs and start saving now.**

**Here's how:**

- 1** To get your free bulbs, call **1-800-943-7585 and press Option 1** or visit [www.duke-energy.com/freecfls](http://www.duke-energy.com/freecfls).
- 2** Install your energy-saving bulbs in the most frequently used areas of your home.
- 3** Enjoy the savings on your electric bill!

**See if you are eligible now. Order your bulbs in less than five minutes!**

# Energy Efficiency Education Program for Schools

## A. Description

The Energy Efficiency Education Program for Schools ("Program") is an energy efficiency program available in North Carolina and South Carolina. The Program is available to students in grades K-12 enrolled in public and private schools who reside in households served by Duke Energy Carolinas, LLC (the "Company"). The current curriculum administered by The National Theatre for Children ("NTC") targets K-8 grade students.

The Program provides principals and teachers with an innovative curriculum that educates students about energy, resources, how energy and resources are related, ways energy is wasted and how to be more energy efficient. The centerpiece of the curriculum is a live theatrical production focused on concepts such as energy, renewable fuels and energy efficiency performed by two professional actors. Teachers receive supportive educational material for classroom and student take home assignments. The workbooks, assignments and activities meet state curriculum requirements.

School principals are the main point of contact and will schedule the performance at their convenience for the entire school. Once the principal confirms the performance date and time, two weeks prior to the performance, all materials are delivered to the principal's attention for classroom and student distribution. Materials include school posters, teacher guides, and classroom and family activity books.

Students are encouraged to complete a home energy survey with their family (included in their classroom and family activity book) to receive an Energy Efficiency Starter Kit. The kit contains specific energy efficiency measures to reduce home energy consumption. The kit is available at no cost to all student households at participating schools, including customers and non-customers.

## Audience

Eligible participants include the Company's residential customers who reside in households with school-age children enrolled in public and private schools.

## B & C. Impacts, Participants and Expenses

<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
<b>North Carolina Nominal Avoided Cost</b>	<b>\$71.0</b>	<b>\$2.5</b>	<b>4%</b>
<b>Program Cost<sup>2</sup></b>	<b>\$23.3</b>	<b>\$2.0</b>	<b>9%</b>
<b>MW<sup>3</sup></b>	<b>39.2</b>	<b>1.0</b>	<b>3%</b>
<b>MWH</b>	<b>188,287.2</b>	<b>5,450.1</b>	<b>3%</b>
<b>Units</b>		<b>21,383</b>	

**Notes on Table:**

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V.
- 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

## D. Qualitative Analysis

### Highlights

The Company is supporting arts and theatre in schools while providing an important message about energy efficiency through an innovative delivery channel for children. Enhancing the message with a live theatrical production truly captivates the children's attention and reinforces the curriculum material provided by teachers.

The 2013-2014 school year will target 749 schools in the Company's service territory in North Carolina and South Carolina. It opened in September 2013 with two new productions delivered by six sets of actors throughout the Company's service territory. "Showdown at Resource Ranch" is a 25-minute theatrical performance for elementary students that teaches them how to use resources wisely through a

## Energy Efficiency Education Program for Schools

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set of funny, yet knowledgeable cast of characters right out of the old West. The middle school production, "The Resource Force", is a 40-minute theatrical performance and combines sketch comedy with improvisation and audience participation focused on teaching students about natural resources and compliments student studies in science and energy.

Fall semester performances have resulted in 14,655 surveys received. Surveys can be completed online or by paper, with the majority being completed online. School contests were introduced to encourage sign ups. For every 100 unique household sign-ups, a school receives \$100 and is entered into a drawing for a \$1,000 cash prize. Beyond 100 sign-ups, there are two other levels of prize drawings for 150 and 200 unique sign-ups winning \$1,500 and \$2,000 respectively. A website, [www.trackmysignups.org](http://www.trackmysignups.org), provides principals, teachers and students an avenue to view their school's progress and compare sign ups to other schools in the area and helps foster community involvement.

AM Conservation, the kit vendor, pre-builds the Energy Efficiency Starter Kits which shortens the kit delivery time. When the Energy Efficiency Survey is completed and eligibility is determined, the kit is shipped and received within two to four weeks.

To ensure customer satisfaction with the Energy Efficiency Starter Kit and the installation of items, an email a reminder is sent two weeks after successful kit delivery to encourage families to return their Family Business Reply Card (BRC). Qualified households that have signed up for a kit and return the BRC are automatically entered into the Family Contest drawing, sponsored by NTC, for a \$2,000 cash prize to be announced in July 2014 for the 2013-2014 academic year.

### Updates

NTC has worked closely with the Company to enhance the program for the 2013-2014 school year by:

- Introducing two new productions to refresh and refocus the materials and scripts and keep participating schools engaged
- Launching a new webpage at [www.duke-energy.com/schools](http://www.duke-energy.com/schools) to promote awareness and participation
- Partnering with Duke Energy Account and District Managers to leverage existing relationships in the community and develop positive media stories while encouraging kit sign ups
- Enhancing the reporting tools to track kit sign ups at the school level
- Evaluating the option of offering an alternative kit or coupon for those customers who have already participated in the Energy Efficiency Education Program

As the Program evolves in 2014, there will be additional enhancements to reporting tools and increased outreach with regional representatives to build awareness and improve the participant's experience.

### E. Marketing Strategy

The National Theatre for Children is responsible for all marketing campaigns and outreach. The National Theatre for Children utilizes direct mail and email sent directly to principals for Program acquisition.

### F. Evaluation Measurement and Verification

The impact evaluation results for program year 2012 were presented during the 2013 fourth quarter Duke Energy Carolinas Collaborative meeting held in December 2013. The impact evaluation report, dated August 21, 2013, is filed in Docket No. E-7, Sub 1050 as Ham Exhibit J.

The process evaluation results for Energy Efficiency Education program year 2014 will be completed in the second half of 2014. The Process evaluation will include Program management and Program participant interviews, as well as evaluator attendance and observation of the National Theatre for Children performances at both elementary and middle schools.

# My Home Energy Report

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Mar 05 2014

## A. Description

The My Home Energy Report (“MyHER” or the “Program”), is a periodic comparative usage report that compares a customer’s energy use to similar residences in the same geographical area based upon the age, size and heating source of the home. Energy saving recommendations are included in the report to encourage energy saving behavior.

The reports are distributed up to 12 times per year (delivery may be interrupted during the off-peak energy usage months in the fall and spring). The report delivers energy savings by encouraging customers to alter their energy use. The monthly energy usage of each home is compared to the average energy usage of neighbors in similar home types for the same period as well as the most efficient neighbors in similar home types for the same period. Customer’s usage is compared to the average home (top 50%) in their area as well as the efficient home (top 25%). Suggested energy efficiency improvements, given the usage profile for that home, are also provided. In addition, measure-specific offers, rebates or audit follow-ups from other Company offered programs are offered to customers, based on the customer’s energy profile.

## Audience

Target customers reside in individually-metered, single-family residences with an active account and concurrent service from Duke Energy Carolinas, LLC (the “Company”).

## B & C. Impacts, Participants and Expenses

Home Energy Comparison Report <sup>12</sup>			
<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 YTD Dec 31, 2013	% of Target
North Carolina Nominal Avoided Cost		\$9.6	
South Carolina Nominal Avoided Cost		\$9.8	
Program Cost		\$7.5	
MW <sup>3</sup>		23.8	
MWH <sup>3</sup>		112,214.3	
Units		722,069	

**Notes on Table:**  
 1) Numbers rounded.  
 2) There is no as-filed comparison for Home Energy Comparison because it was a new pilot in 2012 and was not included in the original filing.  
 3) Impacts incremental to 2011 achievement.

## D. Qualitative Analysis

As customers receive subsequent reports, their engagement increases as they learn more about their specific energy use and how they compare to their peer group. The report then provides customers tools to reduce their usage in the form of targeted energy efficiency tips that provide customers with actionable ideas to help them become more efficient. Program participants are encouraged to contact the Company with their questions, comments and report corrections. Report corrections continue to generate the largest number of inquiries. Customers wishing to be removed from the Program represent less than one percent of program participants.

## Highlights

In July 2013, the format of the report was modified to show the comparison of customer usage in kWh instead of dollars. This modification was implemented to minimize the possibility of confusion associated with dollars shown on the report and the customer’s bill. As the kWh amount shown on the comparison will reflect the usage recorded on the bill opposed to a bill amount created using a rate factor that would

## My Home Energy Report

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not match their monthly equal payment plan amount, this new report format enables the Company to offer the report to customers enrolled in the Company's Equalized Payment Plan ("EPP"). The Company is evaluating the opportunity to offer MyHER to EPP customers.

### **Potential Changes**

The Company is implementing a rapid prototype testing approach of an online and mobile experience incorporating the report and other behavior modification advice and tools as well as email communication.

### **E. Marketing Strategy**

Marketing for the Program consists of proactive communication through distribution of reports supported by a program website featuring additional information on the reports, Frequently Asked Questions (FAQs) and contact resources. The online component once live will be marketed in the printed report.

### **F. Evaluation, Measurement and Verification**

The impact and process evaluation results for My Home Energy Report will be presented during the 2014 second quarter Duke Energy Carolinas Collaborative meeting.

The process evaluation includes interviews with Program management and vendors and surveys of Program participants. The impact evaluation is based on a billing analysis of all program participants.

**A. Description**

The Appliance Recycling Program (“Program”) promotes the removal and responsible disposal of operating refrigerators and freezers from Duke Energy Carolinas, LLC’s (the “Company”) residential customers. The refrigerator or freezer must have a capacity of at least 10 cubic feet but not more than 30 cubic feet. The Program recycles approximately 95% of the material from the harvested appliances.

**Audience**

Eligible Program participants include the Company’s residential customers who own operating refrigerators and freezers used in individually metered residences.

**B & C. Impacts, Participants and Expenses**

<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 YTD Dec 31, 2013	% of Target
<b>North Carolina Nominal Avoided Cost</b>		<b>\$4.8</b>	
<b>Program Cost</b>		<b>\$1.8</b>	
<b>MW</b>		<b>1.7</b>	
<b>MWH</b>		<b>9,220.9</b>	
<b>Units</b>		<b>9,287</b>	

**Notes on Table:**  
 1) Numbers rounded.  
 2) There is no as-filed comparison for Appliance Recycle because it was not included in the original filing.

**D. Qualitative Analysis**

**Highlights**

The Program launched on August 21, 2012 and features a state of the art recycling center in Charlotte. The Program’s website is operational and can be viewed at <http://www.duke-energy.com/south-carolina/savings/appliance-recycling.asp>. Screen captures of the website are included in the Appendix. The Company selected JACO, the third party Program administrator, by using a competitive bid process.

**Key Activities**

The Program was promoted through bill inserts, the Company’s website, digital media, mass media, and public relations.

As a result of launching late in 2012, the participation for 2013 was lower than originally estimated for the year.

January 2013 – December 2013 ARP Participation

	Refrigerators	Freezers	TOTAL
North Carolina	5,419	1,956	7,375
South Carolina	1,360	552	1,912
<b>TOTAL</b>	<b>6,779</b>	<b>2,508</b>	<b>9,287</b>

Incentive Market Research Incentive Study

The Company launched ARP with a \$30 customer incentive initially. In September & October of 2013, an Incentive Study was conducted to determine the participation impact of customers offered a \$30 incentive, a \$40 incentive, and a \$50 incentive. The results were statistically valid indicating a lift of over 200% at the \$50

incentive level which would improve program performance. The Company continues to evaluate increasing the incentive amount.

### E. Marketing Strategy

The marketing campaign incorporated the following three-pronged approach to reach customers and promote the Program:

- Mass media/advertising
- Public relations
  - Major TV broadcast media filmed and aired Program collection crews making home appliance pickups in both states.
  - Pop Up Museum in Charlotte: Display of decorated, recycled fridge doors. Promoted to the public and news media was invited to attend. This event included a social media component, Facebook and twitter, to drive attendance and invite engagement. A Facebook chat also helped answer questions at the event.
  - The Company's Corporate Communications and Runyon, Saltzman & Einhorn – JACO advertising agency – developed and released Program launch alerts to key media outlets in NC and SC.
  - Media was invited to the new Carolinas Recycle Center in Charlotte to view the recycling of the appliance picked up during the Program launch.

The Company's Program marketing channels include but not limited to:

- Bill Inserts and Bill Messages
  - From the Call Center, 40% of North Carolina customers and 45% of South Carolina customers surveyed indicated bill inserts as "How they heard about the Program"
- State landing page promos on duke-energy.com
- On Line Services web site promos
- Press releases and press events
- Residential opt-in email blasts
- Direct mail
- Pop Up Museum at Wells Fargo Atrium
- Social media promotions

The marketing campaign accentuates the following key messages:

- Free pick up is the number one driver for participation
- Customers will receive an incentive for recycling an eligible appliance
- Recycling an old refrigerator or freezer can save a customer up to \$150/year
- Up to 95% of the unit is recycled
- An older, inefficient refrigerator or freezer typically consumes **1,500 kilowatt hours annually**. A new Energy Star® rated unit typically consumes **400 to 500 kilowatt hours annually**.
- Older refrigerators may **use up to four times more electricity** than newer Energy Star® rated units. Many second refrigerators are used only occasionally or are not full, wasting even more energy.
- JACO will remove the old working unit and dispose of it in an environmentally safe way.

### F. Measurement and Verification

The impact and process evaluation results for the Program reflect program years 2012 and 2013 will be presented during the 2014 second quarter Duke Energy Carolinas Collaborative meeting. The process evaluation includes interviews with Program Management, implementation vendor and Program participants.

In response to the Order issued by the North Carolina Utilities Commission on July 17, 2012 in Docket No. E-7, Sub 1005 the Company revised the impact evaluation plan to include a billing analysis in addition to the engineering analysis proposed.



G. Appendix

Web pages

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Email



## Fridge/Freezer Recycling Free pickup!

### Get \$30 for your old appliance.

Give us your spare, working fridge or freezer. We'll remove it for FREE and give you a check for \$30. It's so easy!

**Sign up now**

- Schedule your FREE pickup.
- We'll haul off your appliance for recycling.
- You'll get a \$30 check.
- Plus, save up to \$150 a year on your electric bill.

Schedule your **free** pickup today.



Duke Energy Storm on Twitter

Follow us for severe weather tips and restoration updates.



Duke Energy Storm on Facebook

Get the latest storm, outage and safety information in your news feed.



youility™ on Facebook

Discover new ways to save energy and money at home.

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Direct Mail



Duke Energy  
EC2ZA | 526 South Church Street  
Charlotte, NC 28202

<<Current Date>>

<<First Name>> <<Last Name>>  
<<Street Address>>  
<<City>>, <<State>> <<Zip Code>>



**GET \$50**  
FOR YOUR SPARE  
**FRIDGE**  
OR  
**FREEZER**

Dear <<Name>> ,

**Have an extra fridge or freezer?**

**We'll give you \$50 for your old appliance – and we'll pick it up for free.** Simply schedule a pickup time that's convenient for you, and our representatives will haul your old, working fridge or freezer away for recycling. It's so easy!

1. Call or go online to schedule.
2. We'll pick up your fridge.
3. You get \$50.

After we remove your appliance, we'll recycle up to 95 percent of its parts and responsibly dispose of the rest. Our Appliance Recycling Program is an easy way to clean out your garage or basement, reduce your impact on the environment – and earn an extra \$50!

**Schedule your pickup by Sept. 30 to qualify for the \$50 incentive.**

Call 855.398.6200 or visit [duke-energy.com/incentive](http://duke-energy.com/incentive) to schedule your free pickup today!

Sincerely,

John Langston,  
Project Manager, Appliance Recycling Program

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Pop Up Museum



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Bill Inserts

**Feeling the heat from high energy costs? Recycle!**

**GET \$30 FOR YOUR OLD REFRIGERATOR**

**FREE PICKUP**

**RECYCLE**

**DUKE ENERGY.**

Ahh, holidays. It's the season of beautiful lights — and an unpleasant lightness in your wallet. That's why you should recycle your old refrigerator or freezer. We'll give you a \$30 reward for it and we'll pick it up for free. Plus you'll save up to \$150 a year in energy costs. Did that just make your day a little brighter?

For a **FREE** pickup, call 855.398.6200 or visit [duke-energy.com/snow](http://duke-energy.com/snow).

**GET \$30 FOR YOUR OLD REFRIGERATOR**

**SAVE UP TO \$150 A YEAR ON ENERGY**

**Duke Energy.**

Refrigerators and freezers should be in working condition and between 10 and 25 cubic feet using direct expansion. Condensers must not leak any freon. Line and fan coils not exposed to exterior. A check will be made before we make any appliance collection. Additional restrictions apply. The program is available to Duke Energy customers only. Visit [duke-energy.com/snow](http://duke-energy.com/snow) for complete program terms and conditions. ©

12/12P

TV

**JACO DUKE-NC :20/:10 TV - SNEAKY**

*Open on a woman standing in her living room, searching through her purse in frustration. Behind her, we see an old refrigerator wobbling its way, as stealthily as possible, into the next room.*

**Woman:** Honey! Did you take a Neenly out of my purse?

*Cut to boy's room. The boy looks confused and is shaking his piggy bank, which is making no noise. Again, we see the old fridge behind him as it "sneaks" out of the room.*

**Boy:** Mom! My piggy bank is empty!

*Cut to garage work station. Dad is working at the bench with his back to camera. Fridge sneaks in from the behind.*

**VO:** Wondering where your cash is going?

*Cut to fridge as it inches forward, extending its powercord.*

**VO:** An old refrigerator can eat up a lot of energy...

*Cut back to a close up of the father. The sneaky fridge reaches into the back pocket and snatches his wallet.*

**VO:** ...and your money along with it.

*Cut back to the fridge. He opens his mouth (large compartment) and throws the wallet into his mouth. Chomping happily.*

**VO:** Recycle that refrigerator, and get some money back.

*Cut to the fridge in a blue recycle bin in the back of a truck. We watch as the truck pulls away.*

**VO:** Get a cash reward and save up to \$150 a year in future energy costs.

**GET \$30 REWARD FOR RECYCLING**

**SAVE UP TO \$150 A YEAR ON ENERGY**

1.855.395.6200  
[duke-energy.com/recycle](http://duke-energy.com/recycle)

**RECYCLE.**

**DUKE ENERGY.**

*Cut to art card displaying the rebate offer, average annual savings, tag line and relevant contact information.*

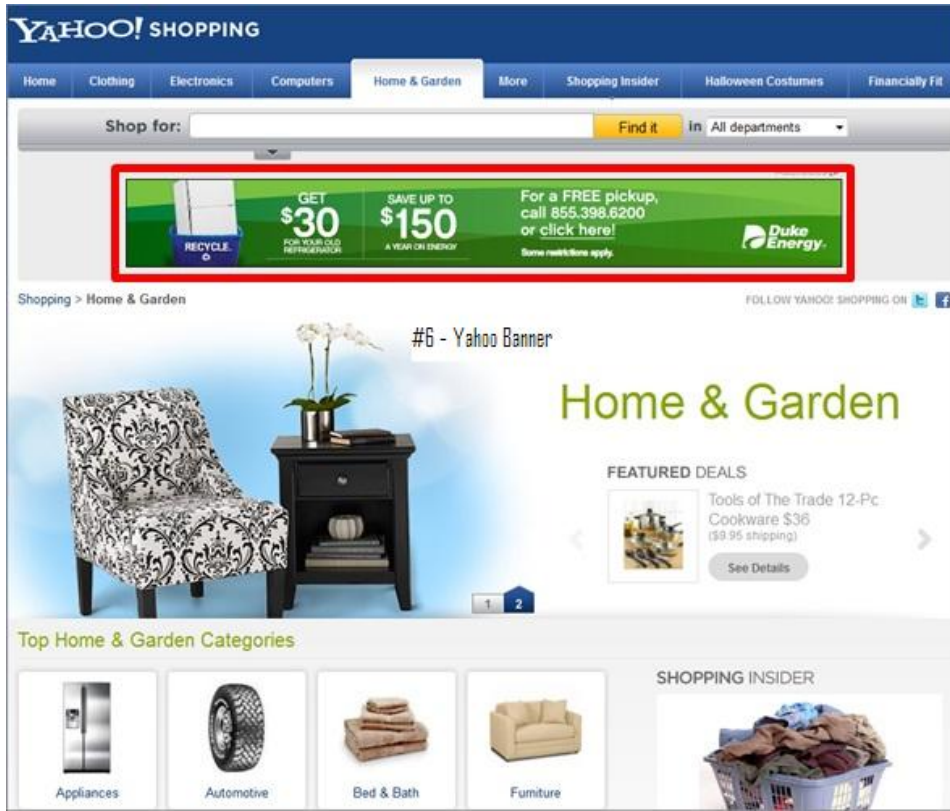
**VO:** To schedule a pickup of your old refrigerator or freezer, visit [duke-energy.com/snow](http://duke-energy.com/snow) or call 855.398.6200.

OFFICIAL COPY Mar 05 2014

Website Promo



Display Banner



Paid Search Ad



# Residential Neighborhood Program

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Mar 05 2014

## A. Description

The Residential Neighborhood Program (“Program”) assists low-income customers in reducing energy costs through energy education and by installing or providing energy efficient measures for each customer’s residence. The primary goal of the Program is to empower low-income customers to better manage their energy usage.

Customers participating in the Program will receive an energy assessment to identify energy efficiency opportunities in the customer’s home and one-on-one education on energy efficiency techniques and measures. Additionally, the customer receives a comprehensive package of energy efficient measures. Each measure listed below will be installed or provided to the extent the measure is identified as energy efficiency opportunity based on the results of the energy assessment.

1. Compact Fluorescent Bulbs - Up to 15 compact fluorescent bulbs to replace incandescent bulbs.
2. Electric Water Heater Wrap and Insulation for Water Pipes.
3. Electric Water Heater Temperature Check and Adjustment.
4. Low-Flow Faucet Aerators - Up to three low-flow faucet aerators.
5. Low-Flow Showerheads - Up to two low-flow showerheads.
6. Wall Plate Thermometer.
7. HVAC Winterization Kits – Up to three winterization HVAC kits for wall/window air conditioning units will be provided along with education on the proper use, installation and value of the winterization kit as a method of stopping air infiltration.
8. HVAC Filters - A one-year supply of HVAC filters will be provided along with instructions on the proper method for installing a replacement filter.
9. Change Filter Calendar.
10. Air Infiltration Reduction Measures - Weather stripping, door sweeps, caulk, foam sealant and clear patch tape will be installed to reduce or stop air infiltration around doors, windows, attic hatches and plumbing penetrations.

## Audience

The Program is available to individually-metered residential customers in neighborhoods with approximately 50% of the homes identified as low income based on third party and census data, which includes income level and household size. Areas targeted for participation in the Program will typically have approximately 50% or more of the households with an income equal to or less than 200% of the poverty level established by the federal government.

## B & C. Impacts, Participants and Expenses

Residential Neighborhood <sup>12</sup>			
<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 YTD Dec 31, 2013	% of Target
North Carolina Nominal Avoided Cost		\$1.3	
Program Cost		\$0.6	
MW		0.5	
MWH		2,777.7	
Units		2,916	

**Notes on Table:**  
 1) Numbers rounded.  
 2) There is no as-filed comparison for Residential Neighborhood because it was not included in the original filing.

## D. Qualitative Analysis

# Residential Neighborhood Program

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## Highlights

The Residential Neighborhood Program launched in March 2013 in South Carolina and in May 2013 in North Carolina. Since Program inception, it has been offered to neighborhoods in Williamston, SC; Spartanburg, SC; Greenville, SC; Lancaster, SC; Charlotte, NC; Greensboro, NC; Winston-Salem, NC; and Durham, NC.

The Residential Neighborhood Program has been successful in obtaining the support of the local community. Neighborhood events have included support from community groups and speakers such as elected officials, community action agency representatives, and homeowner's association leaders.

## Issues

There are no issues to report at this time.

## Potential Changes

There are no potential changes to report at this time.

## E. Marketing Strategy

Duke Energy Carolinas, LLC (the "Company") will continue to target neighborhoods with a significant low-income customer base using a grassroots marketing approach to interact on an individual customer basis and gain trust. Participation is driven through a neighborhood kick-off event that includes trusted community leaders explaining the benefits of the Program. The purpose of the kick-off event is to rally the neighborhood around energy efficiency and to educate customers on methods to lower their energy bills. Customers will have the option to sign up for an energy assessment at the time of the event.

In addition to the kick-off event, the Company plans to use the following avenues to inform potential customers about the Program:

- Direct mail
- Door hangers
- Press releases
- Community presentations and partnerships
- Inclusion in community publications such as newsletters, etc.
- Neighborhood signs, banners, postings
- Flyers

Beginning in March 2014, the vendor will fund and implement a drawing for a Visa gift card for potential participants. Specific dollar amounts will be tested in various markets to determine which value best increases interest from customers.

Examples of marketing collateral are included in the Appendix.

## F. Measurement and Verification

The process evaluation results for Residential Neighborhood will be completed in early 2014 and presented during the 2014 second quarter Duke Energy Carolinas Collaborative meeting. The process evaluation includes Program management and vendor interviews plus participant and non-participant surveys.

The impact analysis methodology will be determined using results from the process evaluation work which will document the Program operations and measures and provide insight on the selection of an



## Residential Neighborhood Program

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appropriate impact evaluation approach. The impact evaluation report is currently expected to be completed by the end of 2014, subject to the process evaluation.

# Residential Neighborhood Program

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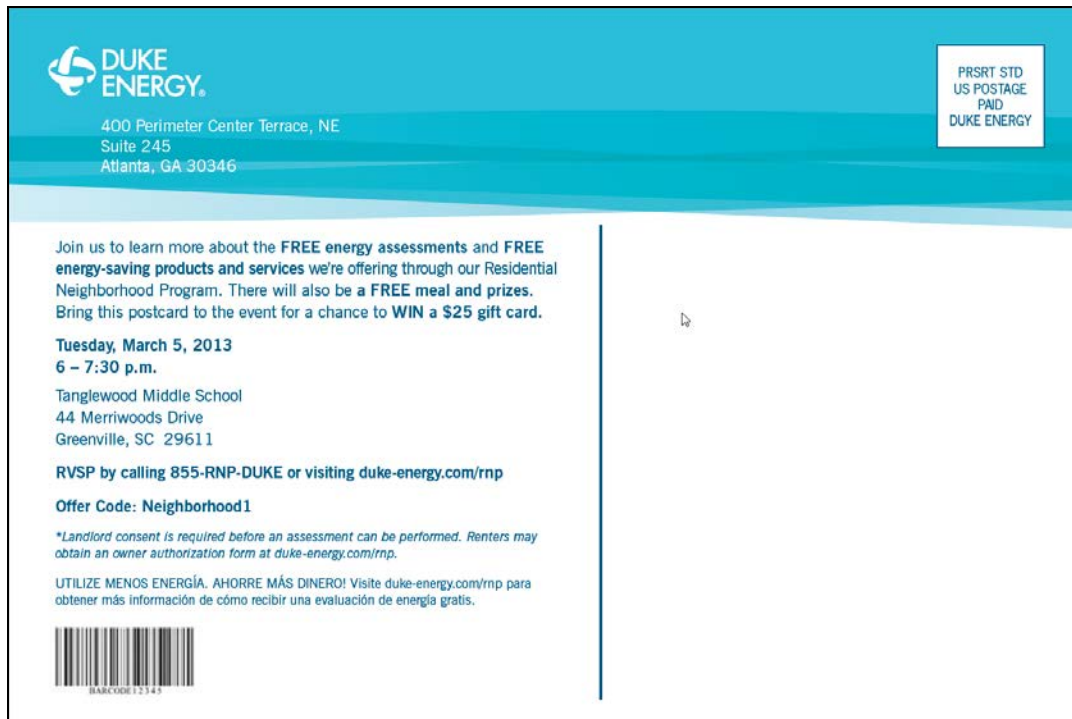
## G. Appendix

### Event Postcard Front:



The front of the event postcard features a photograph of a smiling man in a blue shirt holding a compact fluorescent light bulb and a silver energy-saving device. The background is a light blue gradient. Text on the right side of the postcard reads: "Your neighborhood has been selected for FREE products and services. Join us at a special family-friendly event to learn about the free energy-saving items, worth up to \$210, that we will be installing in homes in your neighborhood for FREE." Below this, a bulleted list includes: "Info on FREE home energy assessments", "FREE meal", and "WIN a \$25 gift card". At the bottom of the text area, it says "Learn more at duke-energy.com/rnp". The bottom of the postcard has a dark blue footer with the Duke Energy logo on the left and the text "Residential Neighborhood Program | Use less. Save more!" on the right.

### Event Postcard Back:

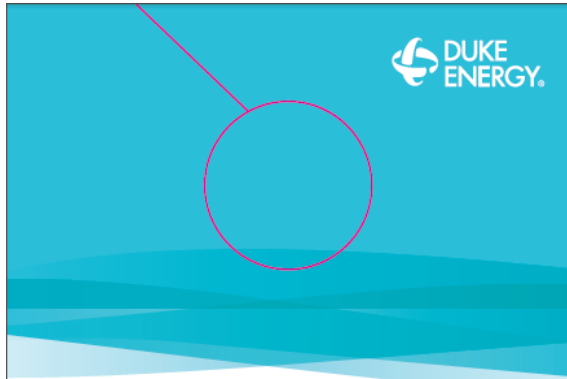


The back of the event postcard has a light blue header with the Duke Energy logo and address: "400 Perimeter Center Terrace, NE Suite 245 Atlanta, GA 30346". A postage-paid stamp in the top right corner reads "PRSR STD US POSTAGE PAID DUKE ENERGY". The main body of the postcard contains the following text: "Join us to learn more about the FREE energy assessments and FREE energy-saving products and services we're offering through our Residential Neighborhood Program. There will also be a FREE meal and prizes. Bring this postcard to the event for a chance to WIN a \$25 gift card." The event details are: "Tuesday, March 5, 2013 6 - 7:30 p.m. Tanglewood Middle School 44 Merriwoods Drive Greenville, SC 29611". It also includes "RVSP by calling 855-RNP-DUKE or visiting duke-energy.com/rnp" and "Offer Code: Neighborhood1". A disclaimer states: "\*Landlord consent is required before an assessment can be performed. Renters may obtain an owner authorization form at duke-energy.com/rnp." Below this is the Spanish text: "UTILIZE MENOS ENERGÍA. AHORRE MÁS DINERO! Visite duke-energy.com/rnp para obtener más información de cómo recibir una evaluación de energía gratis." At the bottom left, there is a barcode with the number "BARCODE 12345" underneath it.

# Residential Neighborhood Program

Don't Miss Out Doorhanger:

Sorry We Missed You Doorhanger:



**DUKE ENERGY.**

## Don't miss out!

A Duke Energy representative will be on your street tomorrow performing FREE walk-through energy assessments, which can help you use less energy at home and save money on your energy bills. Your neighborhood was specially selected to receive these FREE assessments – don't miss out! You'll get:

- A walk-through assessment to show you where your home is wasting energy.
- Up to 16 energy-saving products and services that could help you save money on your electric bill. (These energy-saving measures can cost up to \$210, but we'll give them to you for free – and we'll install them, too.)
- Free energy tips to help you save even more.

We will be on your street \_\_\_\_\_  
between \_\_\_\_\_ a.m. / p.m.

Energy Specialist's name: \_\_\_\_\_

Phone number: \_\_\_\_\_

To take advantage of this free program, an adult occupant must be home at the time of our visit.

**Learn more at [duke-energy.com/rnp](http://duke-energy.com/rnp)**

\*Landlord consent is required before an assessment can be performed. Renters can download an Owner Authorization Form at [duke-energy.com/rnp](http://duke-energy.com/rnp).

**Residential Neighborhood Program**  
Use less. Save more!



**DUKE ENERGY.**

## We're sorry we missed you!

An Energy Specialist from Duke Energy was here to help you find ways to save energy, and save money on your energy bills. Your neighborhood was selected for this FREE service through our Residential Neighborhood Program. We're offering FREE walk-through energy assessments and energy-saving products to homes in your neighborhood. But don't worry – we can come back at another time.

**Please contact me to set up a time that is convenient for you.**

Energy Specialist's name: \_\_\_\_\_

Phone number: \_\_\_\_\_

As a part of this program, you'll get:

- A walk-through assessment to show you where your home is wasting energy.
- Up to 16 energy-saving products and services that could help you save money on your electric bills. (These energy-saving measures can cost up to \$210, but we'll give them to you for free – and we'll install them, too.)
- Free energy tips to help you save even more.

To take advantage of this free program, an adult occupant must be home at the time of our visit.

**Learn more at [duke-energy.com/rnp](http://duke-energy.com/rnp)**


\*Landlord consent is required before an assessment can be performed. Renters can download an Owner Authorization Form at [duke-energy.com/rnp](http://duke-energy.com/rnp).

**Residential Neighborhood Program**  
Use less. Save more!

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Mar 05 2014

# Residential Neighborhood Program

Event Flyer:




## We want to help you and your neighbors save money and energy at home.

Please join us to learn more about the **FREE** walk-through energy assessments we'll be performing in your neighborhood through our Residential Neighborhood Program. There will be demonstrations of our **FREE energy-saving products**, a **FREE meal** and a chance to **WIN a \$25 gift card**.

**Hayti Heritage Center**  
804 Old Fayetteville Street  
Durham, NC 27701

**Wednesday, December 11, 2013**  
6 - 7:30 p.m.

**Our partners:**  
City of Durham  
Durham County Government  
Durham County Department of Social Services  
Clean Energy Durham  
Operation Breakthrough, Inc.  
North Carolina Weatherization Program



**RSVP by calling 855-RNP-DUKE**

The Residential Neighborhood Program is a **FREE** walk-through energy assessment and improvement program for qualified customers.

In the days following this neighborhood event, an Energy Specialist will visit your house to perform a walk-through assessment that will show you where your home is wasting energy.

During the **FREE** walk-through assessment, we'll also provide you with up to 16 energy-saving products and services that could help you save money on your electric bill. These energy-saving measures can cost up to \$210, but we'll give them to you for free – and we'll install them, too. Services provided are based on your home's specific energy usage and needs.

[Learn more at duke-energy.com/rnp](http://duke-energy.com/rnp)

**Residential Neighborhood Program** | Use less. Save more!

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# Power Manager®

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## A. Description

Power Manager® (“Program”) is a demand response program that cycles residential central air conditioning usage during summer peak demand conditions. Duke Energy Carolinas, LLC (the “Company”) installs a load cycling device to the outdoor unit of a qualifying air conditioner. This enables the customer’s air conditioner to be cycled off and on when the Company initiates a Power Manager event. In addition, the Company can perform a full shed interruption of participating customers’ air conditioning systems at any time due to capacity problems, including generation, transmission or distribution capacity problems or reactive power problems.

Program participants receive a financial incentive for participating in this program – an \$8 per month bill credit from July through October (\$32 annually).

The cycling of the customer’s air-conditioning system has shown that there is no adverse impact on the operation of the air-conditioning system. The load control device has built-in safe guards to prevent the “short cycling” of the air-conditioning system. The air-conditioning system will run the minimum amount of time required by the manufacturer. Cycling simply reduces the amount of time the air-conditioning system runs, which is no different from what it does on milder days. Additionally, the indoor fan will continue to run and circulate air during the cycling event.

## Audience

The Program is available to the Company’s residential customers residing in owner-occupied, single-family residences with a qualifying outdoor central air-conditioning unit.

## B & C. Impacts, Participants and Expenses

North Carolina PowerManager <sup>1</sup>			
<i>\$ in millions</i>	Vintage 4 As Filed	Vintage 4 December 31, 2013	% of Target
North Carolina Nominal Avoided Cost	\$18.8	\$25.3	135%
Program Cost <sup>2</sup>	\$6.4	\$12.8	201%
MW <sup>3</sup>	244.4	329.0	135%
MWH	N/A	N/A	
Units		184,043	

**Notes on Tables:**  
 1) Numbers rounded.  
 2) As filed program costs do not include M&V. Actual costs may include M&V.  
 3) MW capability derived by taking average over the summer event season.  
 4) Units represent average number of PowerManager devices over the summer event season.

## D. Qualitative Analysis

### Power Manager Events – 2013

An unseasonably cool and rainy weather pattern settled over the Carolinas during the first part of the summer of 2013. In mid-July, typical summer weather returned and Power Manager was first used on July 17. Power Manager was used eight times in North Carolina and six times in South Carolina, which includes test events. Due to a severe thunderstorm, multi-widespread outages occurred in South Carolina. Two Power Manager events were held in North Carolina while restoration efforts were still underway in South Carolina. Because of the sensitivity to customer experience and satisfaction, Power Manager was not used in South Carolina during these two days.

### Expanding the Value of Power Manager through Operating Reserves

## Power Manager®

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To maintain system reliability and fulfill various regulatory requirements, the Company must maintain a prescribed level of electricity supply in reserve. These reserves provide a quick response in the event of an unexpected reduction in electric supply or to help meet ever-fluctuating electricity demand.

Prior to the start of the 2013 summer season, the Company successfully completed a project that allows Power Manager to become a strategic component in its summertime operating reserves. The Company's System Operating Center now has the ability to quickly initiate a Power Manager cycling event to reduce energy demand as part of the operating reserve resources.

This benefits customers by providing a lower-cost option than maintaining more expensive generation sources in the "stack" of operating reserves or contracting with outside energy providers to provide electricity if needed. These avoided costs are realized whether or not Power Manager is actually used. By including the Program in the stack of options, the Program is delivering additional value to the Company and its customers.

### **E. Marketing Strategy**

In 2013, the Company continued to use limited marketing for Power Manager customer acquisition, while focusing its resources on replacing older Power Manager devices.

Over 4,100 new air conditioners were added to the Power Manager program in 2013. Two Power Manager email offers, one in the spring and one in the fall, were sent to customers who opted in to receive emails offers from the Company. This low cost acquisition approach resulted in over 580 enrollments. Over half of the overall customer enrollments were obtained via outbound telephone marketing. This new Power Manager marketing channel has been very cost effective by producing more enrollments per contact than other previously used channels.

Based on the successful mailing postcards in 2012, the Company began mailing postcards in January 2013 to North Carolina and South Carolina customers in advance of the Power Manager device replacement field visit. Providing proactive notification of the work and reference to the Company's contractor GoodCents resulted in improved customer experience. In addition, it increased retention of customers on the Program.

Over 35,000 older Power Manager devices were removed from participating customers' homes in 2013 due to the replacement effort. The vast majority of these were replaced with new Power Manager devices. Those that were replaced were as a result of customers' requests to be taken off the program.

Program information and enrollment form are available to customers on the Power Manager website located at <http://www.duke-energy.com/north-carolina/savings/power-manager.asp>.

### **F. Evaluation, Measurement and Verification**

The impact and process evaluation results for Power Manager program year 2012 were presented during the second quarter Duke Energy Carolinas Collaborative meeting held in June 2013. The process evaluation report, dated March 21, 2013, is filed in Docket No. E-7, Sub 1050 as Ham Exhibit D and the impact evaluation report, dated June 11, 2013, is filed in in Docket No.E-7, Sub 1050 as Ham Exhibit G.


The impact and process evaluation results for Power Manager program year 2013 will be presented to the Collaborative at the 2014 Q2 meeting. The results from the 2014 season will be available in 2015.

# Power Manager®


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Mar 05 2014

## G. Appendix

### March 2013 email



Helping the environment is its own reward.  
And the \$32 annual credit is a nice one, too.



Enroll in [Power Manager®](#) today.


[Power Manager](#) remotely cycles off your air conditioner for a portion of each half hour when electricity demand reaches peak levels – usually five to 10 times per year, on hot weekday afternoons. You'll get an \$8 credit on your bill each month, from July through October, for signing up – that's a total savings of \$32 each year!

**Learn more**  
[www.duke-energy.com/power-manager](http://www.duke-energy.com/power-manager)


By enrolling, you're helping to:

- Reduce use of less-efficient, higher-cost energy supply options
- Keep electricity rates lower
- Lower your summer electric bills.


You win. We win. The environment wins. [Enroll today!](#)



Duke Energy Storm on Twitter  
Follow us for severe weather tips and restoration updates.





Duke Energy Storm on Facebook  
Get the latest storm, outage and safety information in your news feed.



youility™ on Facebook  
Discover new ways to save energy and money at home.


[Update Your Subscriptions](#) | [Unsubscribe](#) | [Privacy Policy](#) | [www.duke-energy.com](http://www.duke-energy.com)

Share this on:  

Duke Energy | 650 South Tryon Street | Charlotte, NC 28202

# Power Manager®

October 2013 email



## Do you have central AC?


Earn \$32 in bill credits every year.

Sign up for Duke Energy's Power Manager® program, and let your air conditioner earn money for you.


[Learn more](#)


Power Manager pays more than 250,000 Duke Energy customers to reduce their electric use when demand for electricity is at its highest.


Visit [duke-energy.com/power-manager](http://duke-energy.com/power-manager) or call 888.463.5022 to sign up today.





USE YOUR AC TO EARN EXTRA CASH

 Duke Energy Storm on Twitter  
Follow us for severe weather tips and restoration updates.

 Duke Energy Storm on Facebook  
Get the latest storm, outage and safety information in your area.

 youility™ on Facebook  
Discover new ways to save energy and money at home.

[Update Your Subscriptions](#) | [Unsubscribe](#) | [Privacy Policy](#) | [www.duke-energy.com](http://www.duke-energy.com)      Share this on:  

Duke Energy | 550 South Tryon Street | Charlotte, NC 28202

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## Power Manager®

### Switch Replacement Postcard



#### **Important Information about Duke Energy's Power Manager® Program**

Thank you for participating in **Power Manager®** – a voluntary program that pays you for allowing Duke Energy to reduce your air conditioning runtime when electricity demand is especially high. Reducing electricity use during peak periods lessens our dependence on less efficient and more expensive power sources, resulting in savings to you and benefits to the environment.

In the coming weeks, a technician from our partner GoodCents, will replace the Power Manager device near your air conditioning unit outside your home at

By upgrading older devices, we are increasing the program's effectiveness. And like your old device, the new one is completely safe and does not harm your air conditioning unit. All work will be done outside your home and completed at no cost to you.

In most cases, you do not need to be present. If your property has a locked fence or outdoor pets we need to know about, or you have questions, please contact us:

Phone: **800-777-9898** select option 4

To learn more about Power Manager, visit [www.duke-energy.com/PowerManager](http://www.duke-energy.com/PowerManager).

Thank you for making a difference.

Duke Energy Carolinas, LLC  
 Estimate - January 1, 2015 to December 31, 2015  
 Docket Number E-7, Sub 1050  
 Updated Projecte Program/Portfolio Cost Effectiveness- Vintage 2015

<b>Program</b>	<b>UCT</b>	<b>TRC</b>	<b>RIM</b>	<b>PCT</b>
<b>Residential Programs</b>				
Appliance Recycling Program	4.60	5.95	1.06	
Energy Efficiency Education	2.35	3.09	1.06	
Energy Efficient Appliances & Devices	2.03	2.71	0.69	14.11
HVAC Energy Efficiency	1.36	1.07	0.85	1.50
Income-Qualified Energy Efficiency and Weatherization Assistance	0.57	1.75	0.40	
Multi-Family Energy Efficiency	2.00	3.76	0.70	
My Home Energy Report	1.55	1.55	0.71	
Power Manager	4.61	7.57	4.61	
Residential Energy Assessments	3.51	3.77	1.36	
<b>Residential Total</b>	<b>2.38</b>	<b>3.25</b>	<b>1.25</b>	<b>11.33</b>
<b>Non-Residential Programs</b>				
Non Residential Smart Saver Custom Energy Assessments	2.37	1.06	0.96	1.59
Non Residential Smart Saver Custom	4.44	1.73	1.19	2.12
Energy Management Information Services	N/A	N/A	N/A	N/A
Non Residential Smart Saver Energy Efficient Food Service Products	4.29	1.77	1.11	2.34
Non Residential Smart Saver Energy Efficient HVAC Products	6.36	2.94	1.93	2.09
Non Residential Smart Saver Energy Efficient Lighting Products	6.02	2.61	1.30	3.14
Non Residential Smart Saver Energy Efficient Pumps and Drives Products	4.27	2.93	1.19	3.99
Non Residential Smart Saver Energy Efficient IT Products	2.75	1.02	0.85	1.69
Non Residential Smart Saver Energy Efficient Process Equipment Products	3.30	2.83	1.17	5.18
PowerShare Call Option	2.47	21.92	1.54	
PowerShare	3.16	26.28	2.73	
<b>Non-Residential Total</b>	<b>3.87</b>	<b>3.19</b>	<b>1.59</b>	<b>2.77</b>
<b>Overall Portfolio total</b>	<b>3.06</b>	<b>3.22</b>	<b>1.42</b>	<b>3.88</b>

**Duke Energy Carolinas, LLC**  
**Changes to DSM/EE Cost Recovery Vintage 4 True Up January 1, 2013 - December 31, 2013**  
**Changes from Prior Filing Due to Application of M&V and Participation**  
**System kWh and kW Impacts Net Free Riders at the Plant**

**Residential Programs**

Program Name	Filed in Docket E-7, Sub 1001		Filed in Docket E-7, Sub 1050		Overall Variance		E-7 Sub 1001	E-7 Sub 1050	Delta	Variance due to Change in Impacts and Measure Mix		Variance due to Change in Participation		Sum of Variances	
	kWh	kW	kWh	kW	kWh	kW	System Participation	System Participation	Participation	kWh	kW	kWh	kW	kWh	kW
Appliance Recycling	-	-	9,220,903	1,711	9,220,903	1,711	-	9,287	9,287	-	-	9,220,903	1,711	9,220,903	1,711
Residential Energy Assessments	3,799,101	705	7,688,605	1,426	3,889,505	722	5,500	7,678	2,178	2,385,471	443	1,504,034	279	3,889,505	722
Smart Saver® for Residential Customers	59,422,880	6,719	123,621,626	13,354	64,198,745	6,635	1,213,407	3,590,128	2,376,721	(52,193,840)	(6,524)	116,392,586	13,160	64,198,745	6,635
Low Income Energy Efficiency and Weatherization Assistance	624,134	79	2,777,665	515	2,153,531	436	575	2,916	2,341	(387,604)	113	2,541,135	323	2,153,531	436
Energy Efficiency Education Program for Schools	3,321,028	616	5,450,099	1,011	2,129,072	395	15,000	21,383	6,383	715,864	133	1,413,208	262	2,129,072	395
Residential Retrofit Pilot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Home Energy Comparison Report	-	-	112,214,255	23,752	112,214,255	23,752	-	722,069	722,069	-	-	112,214,255	23,752	112,214,255	23,752
PowerManager	-	343,508	-	328,993	-	(14,515)	185,867	184,043	(1,824)	-	(11,144)	-	(3,371)	-	(14,515)
<b>Residential Programs Total</b>	<b>67,167,143</b>	<b>351,627</b>	<b>260,973,153</b>	<b>370,763</b>	<b>193,806,011</b>	<b>19,136</b>	<b>1,420,350</b>	<b>4,537,504</b>	<b>3,117,154</b>	<b>(49,480,110)</b>	<b>(16,979)</b>	<b>243,286,120</b>	<b>36,116</b>	<b>193,806,011</b>	<b>19,136</b>

**Non-Residential Programs**

Program Name	Filed in Docket E-7, Sub 1001		Filed in Docket E-7, Sub 1050		Overall Variance		E-7 Sub 1001	E-7 Sub 1050	Delta	Variance due to Change in Impacts and Measure Mix		Variance due to Change in Participation		Sum of Variances	
	kWh	kW	kWh	kW	kWh	kW	System Participation	System Participation	Participation	kWh	kW	kWh	kW	kWh	kW
Smart Saver® for Non-Residential Customers Lighting	54,199,307	9,160	76,392,167	13,043	22,192,861	3,883	205,366	235,447	30,081	14,254,042	2,541	7,938,819	1,342	22,192,861	3,883
Smart Saver® for Non-Residential Customers Motors	2,350,755	462	8,065,349	1,570	5,714,593	1,108	1,910	7,101	5,191	(675,871)	(148)	6,390,464	1,256	5,714,593	1,108
Smart Saver® for Non-Residential Customers - Other Prescriptive	17,304	3	133,175	32	115,871	29	315	280	(35)	117,801	30	(1,930)	(0)	115,871	29
Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	984,607	165	1,132,425	209	147,818	44	516	1,577	1,061	(1,877,956)	(295)	2,025,775	339	147,818	44
Smart Saver® for Non-Residential Customers - HVAC	4,092,253	1,602	5,081,170	1,912	988,917	310	24,887	62,407	37,520	(5,180,564)	(2,106)	6,169,481	2,416	988,917	310
Smart Saver® for Non-Residential Customers - Custom Rebate	67,290,611	7,697	100,660,054	13,250	33,369,443	5,553	12,807	27,484	14,677	(43,748,223)	(3,268)	77,117,666	8,821	33,369,443	5,553
Smart Energy Now	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PowerShare	-	364,338	-	378,032	-	13,694	337	188	(150)	-	175,351	-	(161,658)	-	13,694
<b>Non-Residential Programs Total</b>	<b>128,934,836</b>	<b>383,427</b>	<b>191,464,340</b>	<b>408,049</b>	<b>62,529,504</b>	<b>24,621</b>	<b>246,138</b>	<b>334,484</b>	<b>88,346</b>	<b>(37,110,771)</b>	<b>172,105</b>	<b>99,640,275</b>	<b>(147,484)</b>	<b>62,529,504</b>	<b>24,621</b>
<b>Total Residential and Non-Residential Programs</b>	<b>196,101,979</b>	<b>735,054</b>	<b>452,437,493</b>	<b>778,812</b>	<b>256,335,514</b>	<b>43,758</b>	<b>1,666,488</b>	<b>4,871,988</b>	<b>3,205,500</b>	<b>(86,590,881)</b>	<b>155,126</b>	<b>342,926,396</b>	<b>(111,369)</b>	<b>256,335,514</b>	<b>43,758</b>

NOTE - The actual per unit impacts are reflective of the following EM&V reports:

Program Name As Filed	Docket	Report Reference	Effective Date
Smart Saver® for Residential Customers	E-7, Sub 1031	Rider 5 - Exhibit F - Residential Smart Saver CFL Process and Impacts.pdf	3/1/2012
	E-7, Sub 1050	Exhibit A - Process and Impact Evaluation of Duke Energy's Residential Smart Saver: Property Manager CFLs in the Carolinas (February 18, 2013)	10/1/2012
Residential Energy Assessments	E-7, Sub 1050	Exhibit B - Process and Impact Evaluation of the Residential Energy Assessments Program (Home Energy House Call) in the Carolina System (February 19, 2013)	12/1/2012
Smart Saver® for Residential Customers	E-7, Sub 1050	Exhibit C - Impact Evaluation of the Residential Smart Saver® HVAC Program in the Carolina System (February 28, 2013)	10/1/2012
Residential Energy Assessments	E-7, Sub 1050	Exhibit E - Process and Impact Evaluation of the Residential Energy Assessments Program (Personalized Energy Report®) in the Carolina System (March 29, 2013)	9/1/2012
Smart Saver® for Non-Residential Customers Lighting	E-7, Sub 1050	Exhibit F - Process and Impact Evaluation of the Non-Residential Smart Saver® Prescriptive Program in the Carolina System: Lighting and Occupancy Sensors (April 5, 2013)	10/1/2012
PowerManager	E-7, Sub 1050	Exhibit G - Impact Evaluation and Review of the 2012 Power Manager® Program in the Carolina System (June 11, 2013)	1/1/2012
PowerShare	E-7, Sub 1050	Exhibit H - Impact Evaluation and Review of the 2012 PowerShare® Program in the Carolina System (June 11, 2013)	1/1/2012
Energy Efficiency Education Program for Schools	E-7, Sub 1050	Exhibit J - Impact Evaluation of the Energy Efficiency for Schools Program (The National Theatre for Children (NTC)) in the Carolinas System (August 21, 2013)	9/1/2012

Duke Energy Carolinas, LLC  
List of Large Industrial and Commercial Customers that have opted-out  
Docket Number E-7, Sub 1050

	Number of Accounts
DSM YR1(09/01/10-12/31/10) RIDER OPT-OUT	1,112
DSM YR2(01/01/11-12/31/11) RIDER OPT-OUT	1,124
DSM YR3(01/01/12-12/31/12) RIDER OPT-OUT	1,106
DSM YR4(01/01/13-12/31/13) RIDER OPT-OUT	1,107
EE YR1 (06/01/09-08/31/10) RIDER OPT-OUT *	935
EE YR1 (09/01/10-12/31/10) RIDER OPT-OUT *	931
EE YR2 (01/01/11-12/31/11) RIDER OPT-OUT	932
EE YR3 (01/01/12-12/31/12) RIDER OPT-OUT	784
EE YR4 (01/01/13-12/31/13) RIDER OPT-OUT	773

\* EE YR1 had multiple enrollment periods due to changes in the Opt-out provisions

Customer Bill Name	DSM YR1	DSM YR2	DSM YR3	DSM YR4	EE YR1	EE YR1	EE YR2	EE YR3	EE YR4	Grand Total
	(09/01/10-12/31/10) RIDER OPT-OUT	(01/01/11-12/31/11) RIDER OPT-OUT	(01/01/12-12/31/12) RIDER OPT-OUT	(01/01/13-12/31/13) RIDER OPT-OUT	(06/01/09-08/31/10) RIDER OPT-OUT	(09/01/10-12/31/10) RIDER OPT-OUT	(01/01/11-12/31/11) RIDER OPT-OUT	(01/01/12-12/31/12) RIDER OPT-OUT	(01/01/13-12/31/13) RIDER OPT-OUT	
400 S TRYON ST INVESTORS, LLC	1	1	1	1	1	1				6
A & T STATE UNIV	1	1	1	1	1	1	1	1	1	9
A W NORTH CAROLINA INC	1	1	1	1		1	1	1	1	8
ABERCROMBIE TEXTILES LLC	2	2	2	2	2	2	2	2	2	18
ABSS FACILITIES DEPT	1	2	2	2						7
AIR PRODUCTS & CHEMICALS, INC	1	1	1	1	1	1	1	1	1	9
AKG THERMAL SYSTEMS	1	1	1	1	1	1	1	1	1	9
AKZO NOBEL SURFACE CHEMISTRY LLC	6	6	6	6	6	6	6	6	6	54
ALDERSGATE	3	3	3	3						12
ALLIED DIE CASTING CO OF NC	1	1	1	1	1	1	1	1	1	9
ALLSTATE INSURANCE	1	1	1	1	1	1	1	1	1	8
ALLVAC, A DIVISION OF TDY INDUSTRIES, INC	1	1	1	1	1	1	1	1	1	9
AMERICAN & EFIRD LLC	5	5	5	5	5	5	6	6	6	48
AMERICAN FIBER & FINISHING	1	1	1	1	1	1	1	1	1	9
ANDALE INC	2	2	2	2						8
APPLE INC	1	1	1	1						4
ARCHER-DANIELS-MIDLAND CO	3	3	3	3	2	2	3	3	3	25
ARJOBEX AMERICA	2	2	2	2	2	2	2	2	2	18
ATRIUM WINDOWS & DOORS	2	2	2	2	2	2	2	2	2	18
B/E AEROSPACE, INC	4	4	4	4	4	4	4	4	4	36
BAKER INDUSTRIES	1	1	1	1	1	1	1	1	1	9
BALDOR ELECTRIC COMPANY	2	2	2	2	2	2	2	2	2	18
BALLANTYNE RESORT, LLC		1	1	1						3
BANK OF AMERICA	5	5	4	4	6	5	2	1		32
BARNHARDT MANUFACTURING COMPANY INC	1	1	1	1					1	5
BASF CORPORATION	2	2	2	2	1	2	2	2	2	17
BB&T	3	3	3	3	3	3	3	3	3	27
BEMIS MANUFACTURING CO	1	1	1	1						4
BERRY TRI PLASTICS	1	1	1	1	1	1	1	1	1	9
BIC CORPORATION	1	1	1	1	1	1	1	1	1	9
BILLY GRAHAM EVANGELISTIC	2	2	2	2						8
BI-LO, LLC	22	24	22	27	22	21	23	21	26	208
BIOMERIEUX, INC	4	4	4	4						16
BISSELL COMPANIES	13	13	13	13	13	13				78
BISSELL GOLF	1	1	1	1						4
BISSELL HOTEL 6 LLC	1	1	1	1						4
BISSELL HOTELS 8, LLC	1	1	1	1						4
BLUE CROSS BLUE SHIELD OF NC	2	2	2	2	2	2	2	2	2	18
BONSET AMERICA CORP	1	1	1	1		1	1	1	1	8
BSN MEDICAL INC		1	1	1						3
BURLINGTON TECHNOLOGIES INC	2	2	2	2	2	2	2	2	2	18
CANDLE CORPORATION OF AMERICA	3	3	3	1	3	3	3	3	3	25
CARAUSTAR INC	2	2	2	2	2	2	1	2	2	17
CARAUSTAR INDUSTRIES	2	2	1	2	2	2	2	1	2	16
CARGILL, INCORPORATED	3	3	3	3	3	3	3	3	3	27
CAROLINA BEVERAGE GROUP, LLC	3	3	3	3	2	3	3	3	3	26
CAROLINA CONTAINER	4	4	4	4		1	1	1	1	20
CAROLINA TRACTOR & EQUIPMENT COMPANY	1	1	1	1	1	1	1	1	1	9
CASE FARMS	1	1	1	1	1	1	1	1	1	9
CASTLE & COOKE NORTH CAROLINA LLC	1	1	1	1	1	1	1	1	1	9
CATAWBA COLLEGE	1	1	1	1						4
CATAWBA VALLEY MEDICAL CENTER		1	1	1						3
CATERPILLAR	1	1	1	1	1	1	1	1	1	9
CEMEX CONSTRUCTION MATERIALS ATLANTIC, LLC	7	7	7	7	7	7	7	7	7	63
CERTAINTED CORP	1	1	1	1	1	1	1	1	1	9
CHARLOTTE COUNTRY DAY SCHOOL	1	1	1	1						4
CHARLOTTE LATIN SCHOOLS, INC	1	1	1	1						4
CHARLOTTE OBSERVER PUBLISHING COMPANY	1	1	1	1	1	1				6
CHARLOTTE PIPE & FOUNDRY	2	2	2	2	2	2	2	2	2	18
CHILDRESS KLEIN PROP	10	10	10	10	10	10	10	10	10	90
CIM URBAN REIT PROPERTIES VIII LP	1	1	1	1	1	1				6
CITY OF CHARLOTTE	11	12	12	12	8	8	9	9	9	90

Customer Bill Name	DSM YR1	DSM YR2	DSM YR3	DSM YR4	EE YR1	EE YR1	EE YR2	EE YR3	EE YR4	Grand Total
	(09/01/10-12/31/10) RIDER OPT-OUT	(01/01/11-12/31/11) RIDER OPT-OUT	(01/01/12-12/31/12) RIDER OPT-OUT	(01/01/13-12/31/13) RIDER OPT-OUT	(06/01/09-08/31/10) RIDER OPT-OUT	(09/01/10-12/31/10) RIDER OPT-OUT	(01/01/11-12/31/11) RIDER OPT-OUT	(01/01/12-12/31/12) RIDER OPT-OUT	(01/01/13-12/31/13) RIDER OPT-OUT	
CITY OF DURHAM	4	4	4	4	4	4	4	4	4	36
CITY OF WINSTON SALEM	15	16	15	14	18	18	19	18	17	150
CK THREE TOWER CENTER,LLC	1	1	1	1	1					5
CK-SOUTHERN ASSOCIATES	1	1	1	1	1					5
CLEMENT PAPPAS NC, INC	3	3	2	3	3	3	3	2	3	25
CLEVELAND COUNTY SCHOOLS	7	7	7	7						28
CMBE	50	50	49	49						198
COATS AMERICAN	2	2	2	2	2	2	2	2	2	18
COLONIAL PIPELINE					5	5	5	5	5	25
COMMONWEALTH BRANDS	3	3	3	3	3	3	3	3	3	27
COMMSCOPE, INC.	5	6	6	6						23
CONBRACO INDUSTRIES	1	1	1	1	1	1	1	1	1	9
CONSOLIDATED METCO INC	1	1	1	1	1	1	1	1	1	9
CONTINENTAL TEVES, INC	2	2	2	2	2	2	2	2	2	18
CORMETECH INC	1	1	1	1	1	1	1	1	1	9
CORNING CABLE SYSTEMS	4	4	4	4	4	4	4	4	2	34
CORNING INC	2	2	2	2	2	2	2	2	2	18
CPCC	6	7	7	7						27
CPI PACKAGING INC	1	1	1	1	1	1	1	1	1	9
CREE INC	4	4	4	4	3	3	3	3	3	31
CSHV SOUTHPARK 6100 FAIRVIEW, LLC	1	1	1	1	1	1	1	1	1	9
CSHV SOUTHPARK, LLC	1	1	1	1	1	1	1	1	1	9
CULP INC	1	1	1	1	1	1	1	1	1	8
DART CONTAINER CORP	1	1	1	1	1	1	1	1	1	9
DAVIDSON COLLEGE					1					1
DOOSAN INFRACORE PORTABLE POWER - A DIVISION OF CLARKE EQUIPMENT	1	1	1	1	1	1	1	1	1	8
DUKE UNIVERSITY	10	9	9	9	10	10	10	10	10	87
DURHAM COUNTY GOVERNMENT	2	2	2	2	2	2	2	2	2	18
DURHAM COUNTY HOSPITAL CORPORATION	1	1	1	1	1	1	1	1	1	9
E I DUPONT CO	1	1	1	1	1	1	1	1	1	9
EASTERN BAND OF CHEROKEE INDIANS	1				1	1				3
EISAI INC	1	1	1	1						4
ELKIN VILLAGE LLC	1	1			1	1	1			5
ELON UNIVERSITY	1	1	1	1	1	1	1	1	1	8
EMC CORPORATION	1	1	1	1	1	1	1	1	1	9
EVONIK STOCKHAUSEN,INC	1	1	1	1	1	1	1	1	1	9
FERGUSON SUPPLY & BOX		1	1	1			1	1	1	6
FLEXTRONICS AMERICA, LLC	4	4	4	4	2	4	4	4	4	34
FOOD LION	193	193	192	191	190	173	183	72	57	1,444
FREIGHTLINER CORP	1	1	1	1	1					5
FREIGHTLINER OF CLEVELAND, LLC	1	1	1	1	1					5
FREUDENBERG NONWOVEN	1	1	1	1						4
FRONTIER SPINNING MILLS, INC	2				2	2	2	2	2	12
FURNITURELAND SOUTH	4	4	4	4						16
G & I V RESOURCE SQUARE 5 LP	1	1	1	1	1	1	1	1	1	9
GAIA HERBS INC	1	1			1	1	1			5
GARDNER WEBB UNIV	1	1	1	1						4
GBORO NEWS & RECORD	1	1	1	1	1	1	1	1	1	9
GE LIGHTING SYSTEMS, INC	1	1	1	1	1	1	1	1	1	9
GENERAL ELECTRIC	1	1	1	1	1	1	1	1	1	9
GERDAU AMERISTEEL US INC	2	2	2	2	2	2	2	2	2	18
GERONIMO RESTAURANTS INC	1	1			1	1	1			5
GLAXO SMITH KLINE	5	5	5	5	5	5	5	5	5	45
GLEN RAVEN INC	2	2	2	2	2	2	2	1		15
GUILFORD COUNTY SCHOOLS	54	54	54	54	49	54	54	41	41	455
GUILFORD TECH COMM COLL		1	1	1						3
HANSON BRICK EAST LLC	3	3	3	3	3	3	3	3	3	27
HARRIS TEETER INC	74	73	74	74	69	69	73	74	74	654
HDM FURNITURE INDUSTRIES INC	3	3	3	3	1	1	1	1	3	19
HEALTHCARE REALTY SERVICES	3	3	3	3	3	3	3	3	3	27
HENDERSON COUNTY SCHOOLS	2	3	3	3	1	1	1	1	1	16
HENKEL CORPORATION	4	4	4	4	4	4	4	3	4	35
HICKORY CITY SCHOOLS	3	3	3	3						12
HIGHWOODS PROPERTIES	8	8	8	8	7	7	7	8	8	69
HIGHWOODS REALTY LIMITED PARTNERSHIP	1	1	1	1	1	1	1	1	1	9
HIGHWOODS REALTY LTP	1	1	1	1	1	1	1	1	1	9
HINES INTEREST LIMITED PARTNERSHIP	2	2	2	2	2	2	2			12
HONDA POWER EQUIPMENT	1	1	1	1	1	1	1	1	1	9
HONDA R&D N AMER INC	1	1	1	1	1	1	1	1	1	9
HORSEHEAD CORPORATION	1	1	1	1	1	1	1	1	1	9
HYOSUNG USA, INC	1	1	1	1	1	1	1	1	1	9
IBM CORPORATION	1	1	1	1						5
INGLES MARKETS, INC.	32	32	32	32	32	32	32	32	32	288
INGREDION INCORPORATED	1	1	1	1	1	1	1	1	1	9
INTERNATIONAL PAPER	7	7	7	7	7	7	7	7	6	62
INTERNATIONAL TEXTILE GROUP INC	2	1	1	1	2	2	2	1	1	13
JACKSON PAPER MFG CO	1	1	1	1	1	1	1	1	1	9
JEFFERSON PILOT LIFE INS	1	1	1	1						4
JPS COMPOSITE MATERIALS CORP						1				1
KAYSER ROTH CORPORATION	1	1	1	1	1	1	1	1	1	9
KEATING GRAVURE USA, LLC	1	1	1	1	1	1	1	1	1	9
KEEBLER COMPANY	3	3	3	3	3	3	3	3	3	27
KENDRION-SHELBY	1	1	1	1	1	1	1	1	1	9

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Customer Bill Name	DSM YR1	DSM YR2	DSM YR3	DSM YR4	EE YR1	EE YR1	EE YR2	EE YR3	EE YR4	Grand Total
	(09/01/10-12/31/10) RIDER OPT-OUT	(01/01/11-12/31/11) RIDER OPT-OUT	(01/01/12-12/31/12) RIDER OPT-OUT	(01/01/13-12/31/13) RIDER OPT-OUT	(06/01/09-08/31/10) RIDER OPT-OUT	(09/01/10-12/31/10) RIDER OPT-OUT	(01/01/11-12/31/11) RIDER OPT-OUT	(01/01/12-12/31/12) RIDER OPT-OUT	(01/01/13-12/31/13) RIDER OPT-OUT	
KIMBERLY CLARK	2	2	2	2	2	2	2	2	2	18
KINDER MORGAN SOUTHEAST TERMINAL	1	1	1	1						4
KINDER MORGAN TRANSMIX GROUP	1	1	1	1						4
KINGS MOUNTAIN MINERALS INC	7	7	6	7	7	7	7	6	7	61
KROGER CO	5	5	5	5		5	5	5	5	40
KROGER LIMITED PARTNERSHIP I	1	1	1	1		1	1	1	1	8
L B PLASTICS INC	1	2	3	3	2	2	2	3	3	21
L S STARRETT CO	4	4			4	4	4	3	3	26
LINCOLN HARRIS	1	1	1	1	1	1	1	1	1	8
LINDE LLC	1	1	1	1	1	1	1	1	1	9
LORILLARD CORP	1	1	1	1	1	1	1	1	1	9
LORILLARD TOBACCO CO	1	1	1	1	1	1	1	1	1	8
LOUISIANA-PACIFIC CORPORATION	1	1	1	1	1	1	1	1	1	9
LOWES FOODS	15	15	15	15	15	15	15	15	15	135
MAINSTREET CLAUDE FREEMAN, LLC	1	1	1	1	1	1	1	1	1	9
MARTIN MARIETTA MATERIALS INC	50	50	50	50	51	50	53	53	53	460
MAUSER CORP					3	3	2	3	3	14
MEBANE PACKAGING CORP	2	2	2	2	2	2	2	2	2	18
MECK CNTY JAIL CENTRAL	1	1	1	1						4
MECKLENBURG COUNTY	15	14	16	16						61
MERCK & CO., INC.	1	1	1	1	1	1	1	1	1	9
MERITOR HEAVY VEHICLE SYSTEMS		1	1	1			1	1	1	6
METROMONT CORPORATION	2	2	2	2	2	2	2	2	2	18
MG-HIW RALEIGH LLC	3	3	3	3	3	3	3	3	3	27
MICHELIN AIRCRAFT TIRE CO	1	1	1	1	1					5
MICHELIN NORTH AMERICA	1	1	1	1	1	1	1	1	1	9
MID ATLANTIC INFRASTRUCTURE INC	1	1	1	1	1	1	1	1	1	9
MILLERCOORS LLC	1	1	1	1	1	1	1	1	1	9
MILLIKEN & COMPANY	2	2	2	2	2	2	2	2	2	18
MOHICAN MILLS	1	1	1	1	1	1	1	1	1	9
MOM BRANDS COMPANY	1	1	1	1						4
MOUNT VERNON MILLS INC	1	1	1	1	1	1	1	1	1	9
N C FOAM IND INC		1	1	1						3
NATIONAL GYPSUM CO	1	1	1	1	1	1	1	1	1	9
NATIONAL PIPE & PLASTICS	2	2	2	2	2	2	2	2	2	18
NC BAPTIST HOSPITAL	5	5	4	4	5	5	5	4	4	41
NC CENTER FOR PUBLIC TV	3	3	3	3	3	3	3	3	3	27
NC DEPT OF HEALTH & HUMAN SERVICES					1	1	1	1	1	5
NEW GENERATION YARNS	1	1	1	1	1	1	1	1	1	8
NGK CERAMICS USA	1	1	1	1	1	1	1	1	1	9
NORTHROP GRUMMAN GUIDANCE & ELECTRONICS COMPANY, INC	1	1	1	1	1	1	1	1	1	9
NOVANT HEALTH INC	8	8	8	6	10	10	9	10	10	79
O'MARA, INC.	1	1	1	1						4
OMNISOURCE SOUTHEAST	2	2	2	2	2	2	2	2	2	18
ORACLE FLEXIBLE PACKAGING	3	3	2	2	3	3	3	2	2	23
OWENS ILLINOIS, INC	1	1	1	1	1	1	1	1	1	9
PACTIV LLC	2	2	2	2	2	2	2	2	2	16
PARAMOUNT PARKS INC	1	1	1	1	1	1	1	1	1	8
PARKDALE AMERICA LLC	9	9	9	9	9	9	9	9	9	81
PARKDALE MILLS, INC	2	2	2	2	2	2	2	2	2	18
PARKER HANNIFIN CORPORATION	4	4	4	4	4	4	4	4	4	36
PARTON LUMBER CO	4	4	4	4	5	5	5	5	5	41
PERFORMANCE FIBERS OPERATIONS INC	4	4	4	4	4	4	4	4	4	36
PHARR YARNS, LLC	5	5	5	5	5	5	5	5	5	45
PILGRIM'S PRIDE CORPORATION	1	1								2
PINE HALL BRICK COMPANY, INC	2	2	1	2	2	2	2	1	2	16
PLANTATION PIPE LINE	3	3	3	3	2	2	3	3	3	25
PLASTIC PACKAGING INC.	3	3	3	3						12
POLYMER GROUP, INC	1	1	1	1	1	1	1	1	1	8
PPG INDUSTRIES FIBER GLASS PRODUCTS, INC	3	3	3	3	4	4	4	2	1	27
PPG INDUSTRIES INC	1	1	1	1	1	1	1	1	1	9
PRECOR MANUFACTURING LLC							1	1	1	3
PRESBYTERIAN HOSPITAL	7	7	7	7	8	8	8	8	8	68
PRESBYTERIAN MEDICAL CARE CORP	1	1	1	1	1					5
PRO LINE PRINTING	1	1	1	1	1		1	1	1	8
PROCTER & GAMBLE MFG	2	2	2	2	2					10
R F MICRO DEVICES	1	1	1	1	1	1	1	1	1	9
RJ REYNOLDS TOBACCO CO	5	5	5	5	5	5	5	5	4	44
ROCHLING ENGINEERED PLAS	2	2	2	2	2	2	2	2	2	18
ROCKINGHAM COMM COLLEGE	1	1	1	1						4
ROWAN SALISBURY SCHOOLS	5	5	5	5			5	5	5	35
RUTHERFORD COUNTY SCHOOLS	1	1	1	1			1	1	1	6
SAB CHECK CASHING	1	1			1	1	1			5
SANS TECHNICAL FIBERS, LLC	3	3	3	3	3	3	3	3	3	27
SCHAEFER SYSTEMS	1	1	1	1	1	1	1	1	1	9
SCHLEGEL CORPORATION					1					1
SCHNEIDER MILLS, INC			1	1						2
SCM METAL PRODUCTS INC	2	2	2	2	2	2	2	2	2	18
SEALED AIR CORPORATION	1	1	1	1	2	2	2	2	2	14
SGL CARBON CORPORATION	1	1	1	1	1	1	1	1	1	9
SHAMROCK CORPORATION	4	4	4	4						16
SHAW INDUSTRIES GROUP, INC	1	1	1	1	1	1	1	1	1	9
SHUFORD YARNS,LLC	1	2	2	2						7

Customer Bill Name	DSM YR1	DSM YR2	DSM YR3	DSM YR4	EE YR1	EE YR1	EE YR2	EE YR3	EE YR4	Grand Total
	(09/01/10-12/31/10) RIDER OPT-OUT	(01/01/11-12/31/11) RIDER OPT-OUT	(01/01/12-12/31/12) RIDER OPT-OUT	(01/01/13-12/31/13) RIDER OPT-OUT	(06/01/09-08/31/10) RIDER OPT-OUT	(09/01/10-12/31/10) RIDER OPT-OUT	(01/01/11-12/31/11) RIDER OPT-OUT	(01/01/12-12/31/12) RIDER OPT-OUT	(01/01/13-12/31/13) RIDER OPT-OUT	
SHURTAPE TECHNOLOGIES	2	3	3	3						11
SONOCO CORRIFLEX DISPLAY & PACKAGING,LLC	1	1	1	1	1	1	1	1	1	9
SONOCO PRODUCTS	2	2	2	2	2	2	2	2	2	16
SOUTH GRANVILLE WATER AND SEWER AUTHORITY	3	3	3	3	3	3	3	3	3	27
SOUTHERN METALS CO	1	1	1	1	1	1	1	1	1	9
SOUTHERN PIPE INC	1	1	1	1	1	1	1	1	1	9
SOUTHEXECUTIVE PARK	2	2	2	2	2	2	2	2	2	18
SPECTRUM PROPERTIES MANAGEMENT COMPANY	1	1	1	1	1	1				6
SPORTS MENAGERIE	1	1			1	1	1			5
STANLEY FURNITURE OF ROBBINSVILLE, LLC	1	1	1	1						4
STIEFEL LABORATORIES INC	1	1	1	1						4
SUMITOMO ELECTRIC ESC, INC	1	1	1	1	1	1	1	1	1	9
SUMITOMO ELECTRIC LIGHTWAVE CORPORATION	1	1	1	1	1	1	1	1	1	9
SUN CHEMICAL CORP	1	1	1	1	1	1	1	1	1	9
SYNGENTA BIOTECHNOLOGY INC	1	1	1	1						4
TEVA PHARMACEUTICALS USA INC	1	1	1	1						4
THE EXCELSIOR PACKAGING GROUP INC						1	1	1	1	4
THE LINCOLN NATIONAL LIFE INSURANCE COMPANY	1	1	1	1					1	4
THE TIMKEN COMPANY	2	3	3	3	2	2	3	3	3	24
THOMAS BUILT BUSES	1	1	1	1						4
TRELLEBORG COATED SYSTEMS US, INC	1	1	1	1	1	1		1		7
TRIBAL CASINO GAMING ENTERPRISES HARRAH'S CASINO & HOTEL						1	1	1	1	4
TROPICAL NUT & FRUIT CO	1	1	1	1			1	1	1	7
TYCO ELECTRONICS CORPORATION	11	11	10	10	10	8	3	2	2	67
TYSON FARMS INC	8	8	8	8	8	8	8	8	8	72
UNC - CHAPEL HILL	11	11	11	11	11	11	11	11	11	99
UNC GREENSBORO	1	1	1	1	1	1	1	1	1	8
UNCC			2	2			1	1	1	7
UNIFI INC	1	1	1	1	1	1	1	1	1	8
UNIFI MANUFACTURING, INC	4	4	3	3	5	5	5	5	3	37
UNILIN FLOORING NC LLC	1	1	1	1	1	1	1	1	1	9
UNITED STATES COLD STORAGE	1	1	1	1	1	1	1	1	1	9
UNIVERSAL FOREST PRODUCTS	8	8	8	8	8	8	8	8	8	72
UPM - RAFLATAC, INC	1	1	1	1	1	1	1	1	1	9
VALDESE WEAVERS	5	5	5	5						20
VILLAGE COMPANIES	1	1	1	1	1	1	1	1	1	9
VULCAN CONSTRUCTION MATERIALS, L P	16	16	16	16	16	16	16	16	16	144
W S FORSYTH COUNTY SCHOOLS	3	3	3	3	3	3	3	3	3	27
WAKE FOREST UNIVERSITY HEALTH SCIENCES	2	2	2	2	2	2	1	1	1	15
WATTS REGULATOR COMPANY	2	2	2	2	2	2	2	2	2	18
WAYNE FARMS LLC	8	8	8	8	8	8	8	8	8	65
WBTV LLC	1	1	1	1	1	1	1	1	1	9
WELLS FARGO BANK NA	9	9	8	8	9	7	7	6	6	69
WESTERN CAROLINA UNIVERSITY	1	1	1	1	1	1			1	7
WIELAND COPPER PRODUCTS LLC	1	1	1	1	1	1	1	1	1	9
WILKES COUNTY BOARD OF EDUCATION	6	6	6	6	6	6	6	6	6	54
WINGATE UNIVERSITY	1	1	1	1	1	1	1	1	1	9
YMCA OF NORTHWEST NORTH CAROLINA	4	4	4	4	4	4	4	4	4	28
ZINK IMAGING INC	1	1	1	1	1	1	1	1	1	9
<b>Grand Total</b>	<b>1,112</b>	<b>1,124</b>	<b>1,106</b>	<b>1,107</b>	<b>935</b>	<b>931</b>	<b>932</b>	<b>784</b>	<b>773</b>	<b>8,804</b>

Duke Energy Carolinas, LLC  
List of Customers that Opted out and subsequently Opt-in  
Docket Number E-7, Sub 1050

DSM Programs	<u>Number of Accounts</u>
<b>Opted-Out Vintage 1 and not in Vintage 2</b>	
A W NORTH CAROLINA INC	1
ABSS FACILITIES DEPT	2
ALDERSGATE	3
ANDALE INC	1
APPLE INC	2
ARCHER-DANIELS-MIDLAND CO	1
BALLANTYNE RESORT, LLC	1
BARNHARDT MANUFACTURING COMPANY INC	1
BASF CORPORATION	1
BEMIS MANUFACTURING CO	1
BILLY GRAHAM EVANGELISTIC	2
BI-LO, LLC	5
BIOMERIEUX, INC	4
BISELL GOLF	1
BISELL HOTEL 6 LLC	1
BISELL HOTELS 8, LLC	1
BONSET AMERICA CORP	1
BSN MEDICAL INC	1
CAROLINA BEVERAGE GROUP, LLC	1
CAROLINA CONTAINER	4
CATAWBA COLLEGE	1
CATAWBA VALLEY MEDICAL CENTER	1
CHARLOTTE COUNTRY DAY SCHOOL	1
CHARLOTTE LATIN SCHOOLS, INC	1
CITY OF CHARLOTTE	4
CLEVELAND COUNTY SCHOOLS	7
CMBE	49
COMMSCOPE, INC.	6
CPCC	7
CREE INC	1
CULP INC	1
DUKE UNIVERSITY	1
EASTERN BAND OF CHEROKEE INDIANS	1
FRONTIER SPINNING MILLS, INC	2
HARRIS TEETER INC	1
INTERNATIONAL TEXTILE GROUP INC	1
MECKLENBURG COUNTY	1
	<u>121</u>

**Opted-Out Vintage 2 and not in Vintage 3**

BANK OF AMERICA	1
BI-LO, LLC	2
CARAUSTAR INDUSTRIES	1
CITY OF WINSTON SALEM	1
CLEMENT PAPPAS NC, INC	1
CMBE	1
ELKIN VILLAGE LLC	1
FOOD LION	1
GAIA HERBS INC	1
GERONIMO RESTAURANTS INC	1
KINGS MOUNTAIN MINERALS INC	1
L S STARRETT CO	4



	<u>Number of Accounts</u>
NC BAPTIST HOSPITAL	1
ORACLE FLEXIBLE PACKAGING	1
PILGRIM'S PRIDE CORPORATION	1
PINE HALL BRICK COMPANY, INC	1
SAB CHECK CASHING	1
SPORTS MENAGERIE	1
TYCO ELECTRONICS CORPORATION	1
UNIFI MANUFACTURING, INC	1
WELLS FARGO BANK NA	1
	<hr/> 25

**Opted-Out Vintage 3 and not in Vintage 4**

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CANDLE CORPORATION OF AMERICA	2
CITY OF WINSTON SALEM	1
FOOD LION	1
NOVANT HEALTH INC	2
PACTIV LLC	2
	<hr/> 8

**EE Programs**

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**Opted-Out Vintage 1 (6/1/2009-8/31/2010) and not in Vintage 1 (9/1/2010-12/31/2010)**

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BANK OF AMERICA	1
BI-LO, LLC	1
CK THREE TOWER CENTER,LLC	1
CK-SOUTHERN ASSOCIATES	1
DAVIDSON COLLEGE	1
FOOD LION	17
FREIGHTLINER CORP	1
FREIGHTLINER OF CLEVELAND, LLC	1
MARTIN MARIETTA MATERIALS INC	1
MICHELIN AIRCRAFT TIRE CO	1
PRESBYTERIAN MEDICAL CARE CORP	1
PRO LINE PRINTING	1
PROCTER & GAMBLE MFG	2
SCHLEGEL CORPORATION	1
TYCO ELECTRONICS CORPORATION	2
WELLS FARGO BANK NA	2
	<hr/> 35

**Opted-Out Vintage 1 and not in Vintage 2**

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400 S TRYON ST INVESTORS, LLC	1
BANK OF AMERICA	3
BISELL COMPANIES	13
CHARLOTTE OBSERVER PUBLISHING COMPANY	1
CIM URBAN REIT PROPERTIES VIII LP	1
EASTERN BAND OF CHEROKEE INDIANS	1
HINES INTEREST LIMITED PARTNERSHIP	2
JPS COMPOSITE MATERIALS CORP	1
MAUSER CORP	1
NOVANT HEALTH INC	1
SPECTRUM PROPERTIES MANAGEMENT COMPANY	1
TRELLEBORG COATED SYSTEMS US, INC	1
TYCO ELECTRONICS CORPORATION	5
UNC GREENSBORO	1

	<u>Number of Accounts</u>
WAKE FOREST UNIVERSITY HEALTH SCIENCES	1
WESTERN CAROLINA UNIVERSITY	1
	<u>35</u>

**Opted-Out Vintage 2 and not in Vintage 3**

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BANK OF AMERICA	1
BI-LO, LLC	2
CARAUSTAR INDUSTRIES	1
CITY OF WINSTON SALEM	1
CLEMENT PAPPAS NC, INC	1
DOOSAN INFRACORE PORTABLE POWER - A DIVISION OF CLARKE EQUIPMENT	1
ELKIN VILLAGE LLC	1
FOOD LION	111
GAIA HERBS INC	1
GERONIMO RESTAURANTS INC	1
GLEN RAVEN INC	1
GUILFORD COUNTY SCHOOLS	13
HENKEL CORPORATION	1
INTERNATIONAL TEXTILE GROUP INC	1
KINGS MOUNTAIN MINERALS INC	1
L S STARRETT CO	1
NC BAPTIST HOSPITAL	1
ORACLE FLEXIBLE PACKAGING	1
PARAMOUNT PARKS INC	1
PINE HALL BRICK COMPANY, INC	1
POLYMER GROUP, INC	1
PPG INDUSTRIES FIBER GLASS PRODUCTS, INC	2
RUTHERFORD COUNTY SCHOOLS	1
SAB CHECK CASHING	1
SONOCO PRODUCTS	1
SPORTS MENAGERIE	1
TYCO ELECTRONICS CORPORATION	1
WELLS FARGO BANK NA	1
YMCA OF NORTHWEST NORTH CAROLINA	4
	<u>156</u>

**Opted-Out Vintage 3 and not in Vintage 4**

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ALLSTATE INSURANCE	1
BANK OF AMERICA	1
CITY OF WINSTON SALEM	1
CORNING CABLE SYSTEMS	2
FOOD LION	15
GLEN RAVEN INC	1
INTERNATIONAL PAPER	1
LINCOLN HARRIS	1
LORILLARD TOBACCO CO	1
PPG INDUSTRIES FIBER GLASS PRODUCTS, INC	1
RJ REYNOLDS TOBACCO CO	1
TRELLEBORG COATED SYSTEMS US, INC	1
UNIFI INC	1
UNIFI MANUFACTURING, INC	2
	<u>30</u>

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Duff Exhibit 10

**Duke Energy Carolinas, LLC**  
**DSM/EE True Up for the Period January 1, 2010 to December 31, 2013**  
**Docket Number E-7, Sub 1050**  
**Allowed Return on Investment Calculation**

Line				
1	Nominal Avoided Cost Target based on Save-A-Watt Settlement Agreement	E-7 Sub 831 Settlement Agreement	\$ 754,000,000	
2	Nominal Avoided Cost Savings Achieved during Vintage 1-Vintage 4	Line 8	<u>\$ 925,416,702</u>	
3	Achievement as a Percent of Target	Line 1 / Line 2	123%	
4	Allowed Return on Investment Percentage @ >90% Achievement of Target		15%	
5	Calculation of Breakdown of Avoided Costs Savings Components:			
6	EE Nominal Avoided Cost Savings	Duff Exhibit 1	\$ 750,992,256	81%
7	DSM Nominal Avoided Costs Savings	Duff Exhibit 1	<u>\$ 174,424,446</u>	19% *
8	Total Nominal Avoided Cost Savings Achieved during Vintage 1-Vintage 4		\$ 925,416,702	

\* Per Settlement Agreement, No more than 35% of the target may be met by DSM programs

Duff Exhibit 11

**Duke Energy Carolinas, LLC**  
**Shared Savings Incentive Calculation**  
**Docket No. E-7, Sub 1050**  
**Estimate January 1, 2015- December 31, 2015**

		<u>System</u>
NPV of AC - Res EE		\$ 59,555,913
NPV of AC - Non Res EE		98,374,762
NPV of AC - DSM		127,482,543
<b>Total NPV of Avoided Costs</b>	<b>A</b>	<b>\$ 285,413,218</b>
Program Costs - Res EE		\$ 31,099,939
Program Costs - Non Res EE		23,907,986
Program Costs - DSM		38,955,517
<b>Total Program Costs</b>	<b>B</b>	<b>\$ 93,963,442</b>
<b>Net Savings</b>	<b>C= A-B</b>	<b>\$ 191,449,776</b>
<b>Sharing Percentage</b>	<b>D</b>	<b>11.50%</b>
Shared Savings - Res EE		\$ 3,272,437
Shared Savings - Non Res EE		8,563,679
Shared Savings - DSM		10,180,608
<b>Total Shared Savings</b>	<b>E =(A-B)*D</b>	<b>\$ 22,016,724</b>